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METHODS OF DESTROYING LICE.

In the British Medical Journal of June 19, 1915, appeared a report entitled "An Investigation of the Best Methods of Destroying Lice and Other Vermin," by J. Parlane Kinloch, M. D., lecturer in public health, University of Aberdeen. The investigation was made with a view to the control of vermin among troops and the prevention of the spread of typhus fever. The author's conclusions and his statement of their practical application are here quoted:

Conclusions.

"1. The louse can be bred and reared in the incubator under suitable conditions of temperature and moisture. Constant conditions for breeding and rearing lice in the incubator remain to be determined.

"2. Dry heat is more effective than moist heat in destroying lice and their eggs. The louse can be revived after immersion for one minute in water at 100° C. Exposure to a dry heat at the same temperature and for the same time appears to kill both lice and nits.

"3. The paraffin bodies are actively insecticidal, and of these petrol (gasoline) is the most effective. Lice and their eggs are destroyed by immersion in petrol for one minute, and they may be killed by exposure to the vapor of petrol for half an hour.

"4. Powerful fatty solvents other than the paraffins are actively insecticidal. Benzine, toluene, and acetone are as toxic to lice as petrol. Certain chlorine derivatives of methane, ethane, and ethylene are more lethal to lice than any other substances, and have the important merit of being noninflammable. Immersion in the chlorine derivatives of ethane and ethylene immediately destroys all lice and nits, and exposure to the vapor of these substances for five minutes is equally destructive. Even soap solutions containing 2 per cent of trichlorethylene or 10 per cent of tetrachlorethane are capable of killing in half an hour at ordinary temperatures all lice and nits.

"5. A 25 per cent solution of dichlorethylene or trichlorethylene in vaseline when applied to the human body has been found capable

of exerting its insecticidal action for hours. The action of a 25 per cent solution of petrol in vaseline is of shorter duration, but is also effective for some hours.

"6. The common phenol disinfectants, in their usual degrees of dilution for disinfectant purposes and at ordinary temperature, fail to kill lice or nits, even after steeping for half an hour, but become efficient as insecticides if the temperature of the steeping tank is maintained at 65° C.

"7. The volatile oils have no direct insecticidal effect. In a moist vapor of oil of wintergreen, oil of cloves, oil of caraway, oil of turpentine, oil of eucalyptus, oil of thyme, etc., lice live for many hours at body temperature, and can be revived after immersion in these oils.

"8. Over solid substances, such as iodoform, camphor, and paraffin, and in contact with them, and in contact with garments impregnated with sulphur, borax, black hellebore, alum, etc., lice appear to remain practically unaffected.

"9. The hungry louse feeds on the human body previously anointed with sulphur ointment, balsam of Peru, mercury oleate ointment, chrysarobin ointment, stavesacre ointment, and hellebore ointment. The louse certainly prefers the clean body, but it can feed on the body thus anointed and thereafter survive.

"10. It has still to be determined whether some of these bodies that have been shown not to be actively insecticidal may not have, when rubbed on the body or placed in clothing, a useful repellent effect on body vermin.

"Practical Application.

"For practical purposes it has been found that destruction of lice and nits is best secured by immersion of verminous garments and bedclothes in a petrol (gasoline) or benzene bath. Danger from fire and waste of petrol are avoided by using such a bath and extractor as are employed in a dry-cleaning apparatus. In such an apparatus 90 per cent of the petrol or benzene is recovered for future use. A petrol or benzene bath is necessary, especially for uniforms and woolen garments generally. Where the clothing is such that it is not injured by immersion in water, steeping the garments for half an hour at 12° C. (54° F.) in a soap solution containing 2 per cent of trichlorethylene or 10 per cent of tetrachlorethane secures destruction of lice and nits. It is only fair to say that the only soap solutions that I have so far experimented with are those sold as 'Westropol' and 'Westoran.' Steeping for half an hour in a 5 per cent solution of cyllin in water maintained at 65° C. (149° F.) is also effective, and this temperature has no injurious shrinkage effect on woolen articles.

"For economical reasons the chlorine derivatives of ethane and ethylene can not at present be used in a dry-cleaning process, but

their soap preparations are of value. Petrol has a wide application and is readily obtained.

"For cleansing the body itself, bathing or sponging with soap solutions containing 2 per cent of trichlorethylene or 10 per cent tetrachlorethane gives the best results.

"In view of the known insecticidal action of these chlorine derivatives of ethylene and ethane it is probable that good results would be obtained by shampooing verminous heads with their soap preparations, and it is also probable that a 25 per cent solution of trichlorethylene in vaseline would form an efficient insecticidal pomade.

"It is almost certain that lice would not continue to live on the human body if anointed daily with a 25 per cent solution of trichlorethylene in vaseline, or on the body anointed twice daily with a solution of petrol in vaseline of similar strength. The odor of such an ointment is not unpleasant. But living under verminous conditions constant precautions would have to be taken and every method of destroying vermin would require to be employed.

"Means for the destruction of lice are available. Any attempt to render an army free from vermin in war time would require that all men occupying the same quarters at the same time, or for alternating short periods of time, would be regarded as a single unit, for which a receiving station with cleansing apparatus would be provided. Such an attempt would also require that the movements of the men off duty were controlled. It would be limited by immediate military necessities.

"There is reason to believe that vermin are responsible for the transmission of the infection of typhus fever, and Nicolle has shown that the louse can convey the infection. Epidemics of typhus fever come and go, and the amount of any epidemic will be influenced by the verminous conditions prevailing. In dealing with typhus patients vermin must first be destroyed by some of the methods above described. Ambulance men and receiving nurses are to be similarly protected, or, if available, a staff of ambulance men and receiving nurses already immune by a previous attack of the disease are to be employed."

THE NUMBER AND KIND OF DRUG ADDICTS.¹

By MARTIN I. WILBERT, Technical Assistant, Division of Pharmacology, Hygienic Laboratory, United States Public Health Service.

In recent years social workers, reformers, and newspaper writers generally have seemed to vie with each other in the presentation of startling data regarding the number and kind of drug addicts in

¹ Presented at the meeting of the Pennsylvania Pharmaceutical Association, Forest Park, Pa., June 22-24, 1915.

this country. In doing so they have established the general impression that those engaged in the various branches of medicine and particularly those engaged in the practice of pharmacy have been delinquent in that they have failed to safeguard the sale and distribution of habit-forming drugs with the care that properly should have been exercised.

Among the statements frequently met with in current papers and periodicals the following are representative:

"More than 2 per cent of the people of this country are addicted to the use of opium and cocaine, and this number is being augmented at the rate of 100,000 a year."

"Fully 90 per cent of the opium we import is used for illegitimate purposes."

"For every ounce of cocaine employed legitimately there are 200 ounces consumed illegitimately."

"Physicians are responsible for at least 95 per cent of the habitual users of opium, its compounds and alkaloidal salts."

"More dope fiends have been created by the refilling of prescriptions than in any other way."

"At least 10 per cent of the 45,000 drug stores in the country exist largely upon the illegitimate sale of habit-forming drugs."

"Many of the proprietary remedies sold to the laity contain a sufficient amount of dope to develop and to maintain a drug habit."

"The use of heroin as a 'kicker' in patent medicines is comparatively common."

"The Harrison law, excellent so far as it goes, is effectively negated by the exceptions included in section 6. The most exacting dope fiend could not ask for a larger hole in the law. If he can get an unlimited amount of his favorite drug in a nostrum form anything else that the Harrison or any other law may or may not provide is a matter of indifference to him."

As has been pointed out before (Public Health Reports, Nov. 27, 1914, p. 3180), some, at least, of these statements are not based on reliable data, while others, having the elements of truth, are misleading, either because of their incompleteness or because of the partial misstatement of fact. While it is unfortunately true that the number of drug addicts in the United States is disgracefully large it does not, and of necessity can not, even approximate the maximum that has been stated.

Practically all of the opium and coca used in this country is imported through legitimate channels, and because of the comparatively high import tax, considerable care is exercised to insure the reporting and recording of all of the product at our disposal, so that we have fairly reliable data on which to base an estimate of the amount of either drug that is available for all purposes.

Converting the recorded quantities of the several drugs imported into average doses, as presented in the Pharmacopœia of the United States, we find that for some years the total amount of these drugs imported has been fairly uniform and will aggregate an average of approximately 2,500,000,000 doses of opium, its derivatives and alkaloids, and 325,000,000 doses of coca leaves and cocaine. These figures serve to definitely fix the amount of available material, and, quite regardless of the proportion of the several drugs that may be used legitimately or illegitimately, the sum total of illegitimate use can not well exceed the sum total of the available material.

A rather interesting source of information regarding the actual number and kind of drug addicts is available through the enforcement of the Tennessee antinarcotic law of 1913. Lucius P. Brown, the State food and drugs commissioner of Tennessee, in a recent report (*Am. J. Public Health*, 1915, v. 5, pp. 323-333), says that after 12 months of operation there were registered in the State of Tennessee under the provisions of the antinarcotic law 2,370 persons of all ages and colors. These included 784, or 33.1 per cent, males and 1,586, or 66.9 per cent, females.

The average consumption per day of the morphine addicts was 8.5 grains, or approximately 1,000 doses each month, or 12,000 doses a year. The State of Tennessee contains slightly more than 2 per cent of the total population of the United States, and on the supposition that the same ratio of addicts and the amount of material consumed will hold good throughout the country we would have a total of something more than 118,000 drug habitués, consuming approximately 1,416,000,000 average doses per year.

Granting the somewhat improbable assertion that 90 per cent of the opium imported is used illegitimately, at the rate that it is said to be consumed in the State of Tennessee we could have as a maximum not more than 187,000 users of opium, its derivatives and alkaloids, in all parts of the United States.

In regard to the use of cocaine, a recent authority asserts that 1 ounce of cocaine is enough to keep 50 fiends thoroughly well doped for a week, or, in other words, that 1 ounce of cocaine is enough to keep one fiend thoroughly well doped for a year.

Granting that all of the available 150,000 ounces of cocaine were used illegitimately, there could be at this rate a total of 150,000 cocaine fiends in the United States.

That this estimate is somewhat high would appear from the report by C. G. Steinmetz, jr. (*J. Am. M. Assoc.* 1915, v. 64, p. 1271), who made a study of 15 cases of cocaine habit acquired by men employed where the drug was manufactured. The daily quantity taken varied from 20 to 60 grains; the method of taking was solely by snuffing it. Even on the basis of the lower quantity the consumption per annum

would be in the neighborhood of 15 ounces and thus reduce the possible number of cocaine fiends very materially.

Pharmacists who have been unfortunate enough to meet with patients addicted to the use of cocaine will appreciate that the figures given by Steinmetz are much more nearly in accord with actual practice than are the figures previously quoted. Taking all the available facts into consideration it would appear that the estimate made by the Committee of the American Pharmaceutical Association some years ago, that the drug addicts in this country do not exceed 200,000 in number, is approximately correct even at the present time.

That other previously made estimates of the number of drug addicts in this country were altogether erroneous is further evidenced by the published reports on hospital admissions since the Federal antinarcotic law came into effect. It had been predicted that the result of the enforcement of this law would be a besieging of hospitals by drug addicts and a crime wave of national scope accompanied by a trail of suicide and death. While the effect of the enforcement of the Federal antinarcotic law has been clearly evidenced by hospital reports the results have been by no means so far-reaching or so startling as had been expected.

The most shocking of the several available reports is that of William D. McNally, coroner's chemist, Cook County, Chicago (*J. Am. M. Assoc.* 1915, v. 64, p. 1264), who states that during the month of March seven deaths occurred in Cook County that were indirectly due to the sudden cessation of the use of morphine. Four died from taking an overdose of morphine. One of the four died from taking an overdose of "Dr. Weatherby's Remedy," a morphine cure containing over 17 grains of morphine sulphate per ounce. During the month of December, 1914, not a single death occurred in Cook County from morphine. During January and February the record shows one death for each month.

Clifford B. Farr (*J. Am. M. Assoc.* 1915, v. 64, p. 1270) reports that since the enactment of the Harrison law the number of admissions to the Philadelphia General Hospital of cases of morphine and heroin addiction has markedly increased. In the first 68 days of 1915 86 patients addicted to heroin were admitted, while in 1911 there was not one.

Other cities have reported similar results, but so far as known the amount of suffering has not in any way measured up to the results that were predicted by newspaper writers and others when the Federal antinarcotic law was under consideration.

Now, just a word in regard to the origin of drug addiction. C. E. Terry, city health officer of Jacksonville, Fla., in the report of a study of local conditions (*Am. J. Public Health*, 1914, v. 4, p. 32), states

that of 213 cases of drug habituation studied by him personally their origins in the order of their frequency were as follows:

Through physicians' prescriptions or treatment personally administered, 54.6 per cent.

Through the advice of acquaintances (for the most part themselves users), 21.6 per cent.

Through dissipation and evil companions, 21.2 per cent.

Through chronic and incurable disease, 2.4 per cent.

The conclusions reached by Terry agree very well with those enunciated by Brown, that from 90 to 95 per cent of the persons habitually using narcotics do so entirely unnecessarily.

It should be remembered that the figures quoted above refer solely to the number and kind of addicts, generally recognized as such, who use narcotic drugs in comparatively large amounts. There is still another and a very pathetic side to the drug addict problem that has as yet received altogether too little attention. This problem involves the ways and means of generating the habit and also includes a consideration of the unfortunates who, for one reason or another, feel compelled to continue the use of comparatively small amounts of a narcotic drug.

Practically all authorities are agreed that the continued use of cocaine is a vice rather than a disease, and the Federal as well as State antinarcotic laws appear to recognize this fact and provide special safeguards to prevent the indiscriminate sale or distribution of even small amounts of cocaine or of preparations containing it.

With opium, morphine, and related products, on the other hand, no such precautions have been taken, despite the fact that addiction to the use of these drugs is generally recognized as a condition over which the individual patient has little or no control.

Up to the present time altogether too little authoritative information is available regarding the origin and subsequent progress of the condition commonly described as morphinism, because physicians usually see only the fully developed cases or the at times spectacular end results.

The morphine or opium addict, as a rule, is secretive and generally seeks relief in ways that are destined to make him an easy prey for the charlatan or advertising quack who promises a positive cure with secrecy.

Lambert, Towne, and others who have made a study of drug addiction agree with the conclusions of Terry quoted above that a very large proportion of the persons addicted to the use of opium and its alkaloids have acquired their habit from the thoughtless renewal of prescriptions containing narcotics or by self-medication with preparations containing comparatively small quantities of an opiate.

In this connection it may be said that it is not generally realized that the taking of even small doses of opium or morphine at regular intervals for a continued length of time will be more likely to develop the opium habit than the occasional indulgence in larger quantities.

It has been asserted (Pettesy, G. E., J. Am. M. Assoc. 1913, v. 61, p. 566), that the average person will develop an addiction to opium or one of its alkaloids after 30 days of daily use and that after the continued use of such a drug for three months or more it is practically impossible to discontinue its use without medical aid.

With these several possibilities fairly well established, it would appear to be unfortunate to indorse or even to countenance exception clauses in antinarcotic laws.

In the Federal antinarcotic law we have the possibility of an accurate survey of existing conditions in connection with the use and abuse of certain narcotic drugs. The findings, if they can be made a matter of record, will place the blame for the illicit use of the proscribed drugs where it rightfully belongs, and will suggest ways and means for correcting existing abuses.

To secure efficient restrictions on the sale and distribution of narcotics, and to demonstrate that they are not primarily to blame for the generation and continuation of the addiction referred to, pharmacists individually should not alone be willing to comply with existing requirements under the law, but should see to it that others engaged in the same line of business comply fully with the spirit as well as the letter of existing laws and regulations.

There can be no gainsaying the fact that the amounts of opium and of coca consumed annually in this country are out of all proportions to the actual need for medicinal purposes, but to locate the existing leaks the followers of all branches of medicine, and particularly the men engaged in the practice of pharmacy, must make consistent and persistent efforts to purge themselves of even the suspicion of being directly or indirectly to blame for existing abuses.

PLAGUE IN THE UNITED STATES.

Recently acquired knowledge has shown that when intelligently handled plague is not the menace to man that it was only a few years ago supposed to be. Plague being primarily a disease of rodents and only secondarily a disease of man, it is apparent that, as plague in the past has been recognized to be present only when it attacked man, it has frequently existed in localities without its presence being known. The presence of the disease in rodents is of far more significance than its presence in man, and the history of the disease in a community must be primarily that of its presence in the rodents of the community, plague being present when it exists in rats just as truly as when it

exists in man. In fact, a plague-infected rat is a greater menace to the community than is a plague-infected man.

In the following tables are given the essential data regarding rodent infection in Seattle since 1907, and rodent infection in New Orleans since December 6, 1914. (A similar statement of previous rodent infection in New Orleans will be found in the Public Health Reports of December 25, 1914, page 3474.)

It is to be borne in mind that the number of plague-infected rats found varies with the number of existing plague-infected rats and also with the amount of trapping which is done and the thoroughness with which it is done. Plague-infected rats may be present, but if the trapping is not done properly, few if any will be caught.

During the month of October, 1907, there were seven reported deaths from plague in Seattle. Since then there has been one death, occurring in December, 1913, which may have been due to plague, but, as the body was embalmed before a bacteriological examination had been made, positive evidence regarding its nature was not obtained. No other cases of plague in man have been reported in Seattle.

Seattle, Wash.

Rats received and examined and plague-infected rats found in Seattle, Wash., from October, 1907, to May, 1915.

Month.	Number of rats received.	Number of rats examined.	Number of rats found plague infected.	Month.	Number of rats received.	Number of rats examined.	Number of rats found plague infected.
1907.				1910.			
October.....	2,113	(1)	0	January.....	4,120	3,519	0
November.....	2,276	(1)	2	February.....	3,561	2,928	1
December.....	3,295	(1)	2	March.....	4,495	* 279	0
1908.				April.....	3,928	3,177	0
January.....	6,782	(1)	1	May.....	3,847	2,946	0
February.....	4,542	(1)	0	June.....	4,112	3,511	0
March.....	4,419	(1)	3	July.....	4,144	3,421	0
April.....	4,724	(1)	3	August.....	4,641	3,843	0
May.....	4,680	(1)	0	September.....	4,098	3,526	0
June.....	5,304	(1)	3	October.....	4,246	3,650	0
July.....	5,067	(1)	6	November.....	3,983	3,549	0
August.....	5,565	(1)	0	December.....	3,683	3,291	0
September.....	5,642	(1)	1	Total.....	48,858	37,640	1
October.....	5,534	(1)	0	1911.			
November.....	4,845	(1)	0	January.....	3,655	3,071	0
December.....	4,901	(1)	0	February.....	3,543	2,937	0
Total.....	62,005		17	March.....	4,340	3,694	0
1909.				April.....	4,618	4,034	0
January.....	3,248	3,244	0	May.....	4,678	3,606	0
February.....	2,872	2,729	0	June.....	3,512	2,996	0
March.....	3,616	3,565	0	July.....	4,460	3,809	0
April.....	4,083	4,004	0	August.....	5,008	4,343	1
May.....	3,748	3,663	0	September.....	3,380	3,050	2
June.....	3,499	2,600	0	October.....	4,745	4,062	0
July.....	3,783	3,508	0	November.....	4,532	3,887	0
August.....	5,308	3,457	0	December.....	4,357	3,801	0
September.....	5,229	(2)	0	Total.....	50,828	43,590	3
October.....	6,469	(2)	0	1912.			
November.....	6,763	(2)	0	January.....	5,009	4,724	0
December.....	4,569	2,100	0	February.....	4,334	4,150	0
Total.....	53,182	28,870	0	March.....	4,222	4,088	0
				April.....	4,375	4,133	0

* Number examined not recorded.

† No rats examined; building new laboratory.

‡ Laboratory undergoing repairs on account of fire.

Seattle, Wash.—Continued.

Rats received and examined and plague-infected rats found in Seattle, Wash., from October, 1907, to May, 1915—Continued.

Month.	Number of rats received.	Number of rats examined.	Number of rats found plague infected.	Month.	Number of rats received.	Number of rats examined.	Number of rats found plague infected.
1912.				1914.			
May.....	4,416	4,163	0	January.....	6,505	5,828	6
June.....	3,743	3,607	0	February.....	4,759	3,826	1
July.....	3,902	3,586	0	March.....	3,582	2,955	1
August.....	4,543	4,236	0	April.....	736	555	3
September.....	4,142	3,808	0	May.....	898	659	1
October.....	4,633	4,403	0	June.....	920	725	2
November.....	4,625	4,456	0	July.....	1,221	933	1
December.....	4,487	4,183	0	August.....	1,547	1,271	1
Total.....	52,431	49,537	0	September.....	1,877	1,528	0
1913.				October.....	1,787	1,405	4
January.....	4,057	3,794	0	November.....	1,525	1,198	5
February.....	3,201	3,059	0	December.....	1,625	1,330	1
March.....	4,056	3,800	0	Total.....	26,982	22,213	26
April.....	4,173	3,929	0	1915.			
May.....	3,776	3,657	0	January.....	1,761	1,444	1
June.....	3,629	3,333	0	February.....	1,558	1,292	0
July.....	3,566	3,417	0	March.....	1,800	1,405	0
August.....	138	38	0	April.....	1,774	1,289	0
September.....	162	62	1	May.....	1,552	1,129	0
October.....	914	814	10	Total.....	8,445	6,559	1
November.....	2,182	1,986	9	Grand total..			
December.....	5,258	4,928	6		345,327	221,226	78
Total.....	34,912	32,817	26				

¹ Discontinued trapping; picked up dead.

Localities in which plague-infected rats were found in Seattle, Wash., from Nov. 7, 1907, to Jan. 9, 1915.

Case No.	Where found.	When found.
1	5826 McKinley Place.....	1907.
2	614 Main Street.....	Nov. 7
3	City dump, First and Spokane Streets.....	Nov. 8
4	Second and Holgate Streets.....	Dec. 21
		Dec. 30
5	Polk's wagon, off City Hall district, Third and Jefferson Sts. (original location unknown).	1908.
6	Water front, between Madison and Pike Streets.....	Jan. 7
7	Old depot, Railroad and Columbia Streets.....	Mar. 25
8	.....do.....	Mar. 26
9	629 Western Avenue.....	Mar. 30
10	Tide flats, First Avenue and Holgate Street.....	Apr. 17
11	909 Western Avenue.....	Apr. 25
12	Wood yard, Eighth and Madison Streets.....	Apr. 30
13	.....do.....	June 23
14	.....do.....	June 29
15	.....do.....	Do.
16	.....do.....	July 6
17	.....do.....	Do.
18	.....do.....	July 9
19	.....do.....	Do.
20	.....do.....	Do.
21	1211 Western Avenue.....	Sept. 25
22	217 Pike Street.....	1910.
		Feb. 8
23	1331 Third Avenue.....	1911.
24	Post and Seneca Streets.....	Aug. 25
25	Second Avenue and Pike Street.....	Sept. 20
		Sept. 21

Seattle, Wash.—Continued.

Localities in which plague-infected rats were found in Seattle, Wash., from Nov. 7, 1907, to Jan. 9, 1915—Continued.

Case No.	Where found.	When found.
		1913.
26	312 Railroad Avenue South.....	Sept. 29
27	.....do.....	Oct. 3
28	Railroad Avenue, between Main and Jackson Streets.....	Oct. 8
29	.....do.....	Oct. 10
30	119 West Main Street.....	Oct. 13
31	City slip, Washington Street and water front.....	Oct. 14
32	Water front, between Main and Jackson Streets.....	Do.
33	University and Western Streets.....	Oct. 23
34	Waterfront, between Marion and Columbia Streets.....	Oct. 28
35	Post Street, between Columbia and Marion Streets.....	Do.
36	325 Eighth Avenue north.....	Oct. 30
37	1119 James Street (Boren and James).....	Nov. 1
38	1517 Pike Place.....	Nov. 5
39	Elliott Avenue and Virginia Street.....	Nov. 12
40	East Waterway (San Juan Fish Co.).....	Nov. 13
41	Pike Place Market, between Pike and Pine and First and Western Avenues.....	Nov. 18
42	Connecticut Street and Water front.....	Nov. 20
43	5414 Renton Avenue.....	Nov. 26
44	208 Third Avenue south.....	Nov. 29
45	5911 Duwamish Avenue.....	Dec. 4
46	2144 Cedar Street.....	Do.
47	Fifth and Pine (market).....	Nov. 29
48	935 Davis Street (Georgetown).....	Dec. 4
49	Hammond Mill, Water front.....	Dec. 5
50	1727 Thirteenth Avenue south.....	Dec. 26
51	Massachusetts Street and Water front.....	Do.
		1914.
52	912 Second Avenue.....	Jan. 5
53	116 Occidental Avenue.....	Jan. 8
54	2331 First Avenue.....	Jan. 9
55	1627 Westlake Avenue.....	Jan. 13
56	First and Pike (market).....	Jan. 21
57	Southeast corner Post and Columbia Streets.....	Jan. 22
58	708 First Avenue.....	Feb. 21
59	Basement, 716 First Avenue.....	Mar. 28
60	810 Western Avenue.....	Apr. 6
61	206 Third Avenue south.....	Do.
62	803 First Avenue (rear).....	Apr. 27
63	Northeast corner Cedar Street and Elliott Avenue.....	May 21
64	165 Washington Street.....	June 9
65	1625 Westlake Avenue.....	June 23
66	First and Columbia.....	July 25
67	1201 Western Avenue.....	Aug. 15
68	2335 Western Avenue.....	Oct. 16
69	First and Pike.....	Oct. 21
70	Battery Street, between First and Second Avenues.....	Oct. 28
71	920 Railroad Avenue.....	Oct. 31
72	91 Pine Street.....	Nov. 7
73	906 Railroad Avenue.....	Do.
74	1418 First Avenue.....	Nov. 17
75	1906 Pike Street, corner of Stewart Street.....	Nov. 18
76	619 Second Avenue, in alley in rear.....	Nov. 28
77	919 Second Avenue, in alley in rear.....	Dec. 10
78	Found inside of a box of plants which had remained open about five hours during daylight in the appraiser's building, the box having been nailed up and opened again later at Sixth and Main Streets on the sidewalk.....	1915. Jan. 9

New Orleans, La.

Localities in which plague-infected rats were found in New Orleans, La., from Dec. 6, 1914, to June 15, 1915.¹

Case No.	Where found.	When found.
		1914.
209	Stuyvesant Docks, Wharf 6.....	Dec. 12
210	Stuyvesant Docks, Wharf 7.....	Dec. 15
211	do.....	Dec. 18
212	Stuyvesant Docks, Wharf 6.....	Dec. 23
213	Crescent City Slaughterhouse.....	Dec. 18
214	Stuyvesant Docks, Wharf 6.....	Dec. 29
215	do.....	Do.
216	do.....	Do.
217	do.....	Do.
218	do.....	Do.
		1915.
219	Stuyvesant Docks, Wharf 4.....	Jan. 2
220	Stuyvesant Docks, Wharf 5.....	Jan. 4
221	Stuyvesant Docks, Wharf 6.....	Jan. 7
222	do.....	Jan. 6
223	do.....	Jan. 4
224	do.....	Do.
225	do.....	Jan. 6
226	do.....	Jan. 7
227	Stuyvesant Docks, Wharf 7.....	Jan. 27
228	do.....	Do.
229	Sixth Street Dock.....	Feb. 1
230	Stuyvesant Docks, Wharf 6.....	Feb. 17
231	Stuyvesant Docks, Wharf 7.....	Feb. 12
232	Girod, between Fulton and St. Peter Streets.....	Feb. 19
233	1535 Terpsichore Street.....	Feb. 22
234	5238 Laurel Street.....	Feb. 19
235	1910 Lapeyrouse Street.....	Feb. 21
236	Lopez and Julia Streets.....	Mar. 3
237	2482 Royal Street.....	Apr. 24
238	do.....	May 4
239	do.....	Do.
240	do.....	Do.
241	do.....	Do.
242	Gravier and Saratoga Streets.....	May 10
243	Clouet and North Rampart Streets.....	June 2
244	1900 Constance Street.....	June 15

¹ This table is a continuation of the table published in the Public Health Reports of Dec. 25, 1914, p. 3474.

PLAGUE-PREVENTION WORK.

CALIFORNIA.

The following report of plague-prevention work in California for the week ended July 17, 1915, was received from Passed Asst. Surg. Hurley, of the United States Public Health Service, in temporary charge of the work:

SAN FRANCISCO, CAL.		SAN FRANCISCO, CAL.—Continued.	
EAT PROOFING.		EAT PROOFING—continued.	
New buildings:		Class A, B, and C (fireproof) buildings:	
Inspections of work under construction..	168	Inspections made.....	219
Basements concreted (16,113 square feet)..	41	Roof and basement ventilators, etc.,	
Floors concreted (7,122 square feet).....	11	screened.....	5,125
Yards, passageways, etc. (13,557 square		Wire screening used (25,030 square feet).	
feet).....	61	Openings around pipes, etc., closed with	
Total area of concrete laid (36,772 square		cement.....	7,379
feet).		Sidewalk lens lights replaced.....	1,000

SAN FRANCISCO, CAL.—Continued.

RAT PROOFING—continued.

Old buildings:	
Inspections made.....	311
Wooden floors removed.....	8
Yards and passageways, planking removed.....	1
Cubic feet new foundation walls installed.....	3,504
Concrete floors installed (43,492 square feet).....	33
Basements concreted (8,780 square feet).....	15
Yards and passageways, etc., concreted (13,197 square feet).....	54
Total area concrete laid (65,469 square feet).....	
Floors rat proofed with wire cloth (2,975 square feet).....	5
Buildings razed.....	3
New garbage cans stamped approved.....	507
Nuisances abated.....	226

OPERATIONS ON THE WATER FRONT.

Vessels inspected for rat guards (times).....	22
Reinspections made on vessels.....	12
New rat guards procured.....	15
Defective rat guards repaired.....	2
Rats trapped on wharves and water front.....	34
Rats trapped on vessels.....	27
Traps set on wharves and water front.....	168
Traps set on vessels.....	53
Vessels trapped on.....	9
Poisons placed on water front (pieces).....	2,300
Poisons placed within Panama-Pacific International Exposition grounds (pieces).....	3,600
Bait used on water front and vessels—bacon (pounds).....	6
Amount of bread used in poisoning water front (loaves).....	8
Pounds of poison used on water front.....	4

SAN FRANCISCO, CAL.—Continued.

RATS COLLECTED AND EXAMINED FOR PLAGUE.

Collected.....	328
Examined.....	264
Found infected.....	None.

RATS IDENTIFIED.

Mus norvegicus.....	158
Mus rattus.....	80
Mus alexandrinus.....	60
Mus musculus.....	30

SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE.

Contra Costa County.....	963
Alameda County.....	394
San Benito County.....	274
Monterey County.....	148
Stanislaus County.....	13

Total.....	1,792
Examined.....	1,754
Found infected.....	1

RANCHES INSPECTED AND HUNTED OVER.

Contra Costa County.....	81
Alameda County.....	61
San Benito County.....	29
Monterey County.....	17
Stanislaus County.....	2

Total.....	190
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PLAGUE-INFECTED SQUIRREL.

Contra Costa County, shot July 1, 1915, Skow ranch (Peoples Water Co.), 7½ miles east of San Pablo.....	1 squirrel.
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Record of plague infection.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
Cities:				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	(1)	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	(1)	126 rats.
Berkeley.....	Aug. 28, 1907	(1)	(1)	None.
Los Angeles.....	Aug. 11, 1908	(1)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).....	Sept. 24, 1909	Oct. 17, 1909 ²	Aug. 7, 1914	286 squirrels, 1 wood rat.
Contra Costa.....	May 17, 1914	(1)	July 1, 1915	1,572 squirrels.
Fresno.....	(1)	(1)	Oct. 27, 1911	1 squirrel.
Merced.....	(1)	(1)	July 12, 1911	5 squirrels.
Monterey.....	(1)	(1)	Apr. 10, 1914	6 squirrels.
San Benito.....	June 4, 1913	(1)	June 23, 1915	42 squirrels.
San Joaquin.....	Sept. 18, 1911	(1)	Aug. 26, 1911	18 squirrels.
San Luis Obispo.....	(1)	(1)	Jan. 29, 1910	1 squirrel.
Santa Clara.....	Aug. 31, 1910	(1)	July 23, 1913	25 squirrels.
Santa Cruz.....	(1)	(1)	May 17, 1910	3 squirrels.
Stanislaus.....	(1)	(1)	June 2, 1911	13 squirrels.

¹ None.² Wood rat.

The work is being carried on in the following-named counties: Alameda, Contra Costa, San Francisco, Stanislaus, San Benito, and Monterey.

LOUISIANA—NEW ORLEANS—PLAGUE ERADICATION.

The following report of plague-eradication work at New Orleans for the week ended July 24, 1915, was received from Passed Asst. Surg. Simpson, of the United States Public Health Service, in temporary charge of the work:

OUTGOING QUARANTINE.		BUILDINGS RAT PROOFED—continued.	
Vessels fumigated with sulphur.....	7	By concrete floor and wall.....	140
Vessels fumigated with carbon monoxide....	13	By minor repairs.....	268
Vessels fumigated with hydrocyanic gas....	1	Square yards of concrete laid.....	14,106
Pounds of sulphur used.....	1,989	Total buildings rat proofed.....	679
Pounds of coke consumed in carbon monoxide fumigation.....	20,700	Total buildings rat proofed to date.....	45,617
Pounds of potassium cyanide used in hydrocyanic gas fumigation.....	102	Abatements.....	338
Pounds of sodium carbonate used in hydrocyanic gas fumigation.....	120	Abatements to date.....	26,438
Pounds of sulphuric acid used in hydrocyanic gas fumigation.....	104	LABORATORY OPERATIONS.	
Clean bills of health issued.....	33	Rodents received, by species:	
Foul bills of health issued.....	5	Mus rattus.....	79
FIELD OPERATIONS.		Mus norvegicus.....	1,429
Number of rats trapped.....	5,635	Mus alexandrinus.....	71
Number of premises inspected.....	10,390	Mus musculus.....	3,914
Notices served.....	3,605	Wood rats.....	37
BUILDINGS RAT PROOFED.		Muskrats.....	37
By elevation.....	123	Putrid (included in enumeration of species).....	55
By marginal concrete wall.....	148	Total rodents received at laboratory.....	5,567
		Rodents examined.....	1,867
		Suspicious rats.....	3
		Plague rats confirmed.....	1

Rodent case.

Case No.	Address.	Captured.	Diagnosis confirmed.	Treatment of premises.
246	Galvez and Erato Streets (Galvez dump).	July 13, 1915	July 20, 1915	Intensive trapping in the neighborhood and on the dump, and the pushing forward of all rat-proofing operations.

Suspicious human cases examined.....	1	Total cases of rodent plague to July 24, by species:	
Human plague cases.....	None.	Mus musculus.....	4
Last case of human plague, October 4, 1914.		Mus rattus.....	16
Last case of rodent plague, July 20, 1915.		Mus norvegicus.....	218
Total rodents captured to July 24.....	396,759	Mus alexandrinus.....	8
Total rodents examined to July 24.....	271,224	Total rodent cases to July 24, 1915..	246

WASHINGTON—SEATTLE—PLAGUE ERADICATION.

The following report of plague-eradication work at Seattle for the week ended July 17, 1915, was received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

RAT-PROOFING.		RAT-PROOFING—continued.	
New buildings inspected.....	14	Sidewalks concreted (square feet).....	10,250
New buildings re-inspected.....	9	Total concrete laid, new structures (square feet).....	54,355
Basements concreted, new buildings (15,750 square feet).....	11	New premises rat-proofed, concrete.....	23
Floors concreted, new buildings (26,780 square feet).....	12	Old buildings inspected.....	5
Yards, etc., concreted, new structures (1,575 square feet).....	2	Premises rat-proofed, concrete, old buildings.....	1
		Floors concreted, old buildings (7,500 square feet).....	1

RAT-PROOFING—continued.

Premises otherwise rat-proofed, old buildings.....	3
Openings screened, old buildings.....	56
Rat holes cemented, old buildings.....	28
Wooden floors removed, old buildings.....	1
Doors rat-proofed, old buildings.....	1
Wire screening used (square feet).....	1,500
Buildings razed.....	2

LABORATORY AND RODENT OPERATIONS.

Dead rodents received.....	4
Rodents trapped and killed.....	270
Total.....	274
Rodents examined for plague infection.....	205
Rodents proven plague infected.....	None.
Poison distributed (pounds).....	17
Bodies examined for plague infection.....	1
Bodies found plague infected.....	None.

CLASSIFICATION OF RODENTS.

Mus rattus.....	6
Mus alexandrinus.....	33
Mus norvegicus.....	188
Mus musculus.....	47

WATER FRONT.

Vessels inspected and histories recorded.....	7
New rat guards installed.....	4

WATER FRONT—continued.

Defective rat guards repaired.....	6
Port sanitary statements issued.....	43

The usual day and night patrol was maintained to enforce rat guarding and fending.

MISCELLANEOUS WORK.

Rat-proofing notices sent to contractors, new buildings.....	16
Letters sent in re rat complaints.....	8

RODENTS EXAMINED IN EVERETT.

Mus norvegicus trapped.....	42
Mus alexandrinus trapped.....	1
Mus musculus trapped.....	3
Mus musculus found dead.....	1

Total..... 47

Rodents examined for plague infection.....	43
Rodents proven plague infected.....	None.

RAT-PROOFING OPERATIONS IN EVERETT.

New buildings inspected.....	4
New buildings, concrete foundations.....	3
New buildings elevated 18 inches.....	1
New buildings, basements concreted (2).....	¹ 2, 230
New buildings, floors concreted (1).....	¹ 120
New buildings, yards concreted (1).....	¹ 160

Total concrete laid, new buildings ¹..... 2, 570

HAWAII—PLAGUE PREVENTION.

The following reports of plague-prevention work in Hawaii were received from Surg. Trotter, of the United States Public Health Service:

Honolulu.

WEEK ENDED JULY 10, 1915.

Total rats and mongoose taken.....	328	Classification of rats trapped:	
Rats trapped.....	324	Mus alexandrinus.....	149
Mongoose trapped.....	4	Mus musculus.....	87
Examined microscopically.....	265	Mus norvegicus.....	72
Showing plague infection.....	None.	Mus rattus.....	16
		Average traps set daily.....	984
		Cost per rat destroyed (cents).....	22

WEEK ENDED JULY 17, 1915.

Total rats and mongoose taken.....	356	Average number of traps set daily.....	984
Rats trapped.....	354	Cost per rat destroyed (cents).....	20½
Mongoose trapped.....	2	Last case rat plague, Aiea, 9 miles from Honolulu,	
Examined microscopically.....	202	Apr. 12, 1910.	
Showing plague infection.....	None.	Last case human plague, Honolulu, July 12, 1910.	
Classification of rats trapped:		Last case rat plague, Kalopa Stable, Paauhau,	
Mus alexandrinus.....	189	Hawaii, Aug. 29, 1914.	
Mus musculus.....	77	Last case human plague, Paauhau Landing,	
Mus norvegicus.....	75	Hawaii, June 29, 1915.	
Mus rattus.....	13		

¹ Square feet.

August 6, 1915

2302

Hilo.

WEEK ENDED JULY 3, 1915.

Rats and mongoose taken.....	2,362	Rats and mongoose plague infected.....	None.
Rats trapped.....	2,332	Classification of rats trapped and found dead:	
Rats found dead.....	3	Mus norvegicus.....	509
Mongoose taken.....	27	Mus alexandrinus.....	285
Rats and mongoose examined macroscopically.....	2,362	Mus rattus.....	701
		Mus musculus.....	837

WEEK ENDED JULY 10, 1915.

Rats and mongoose taken.....	1,735	Classification of rats trapped and found dead:	
Rats trapped.....	1,715	Mus norvegicus.....	399
Rats found dead.....	2	Mus alexandrinus.....	218
Mongoose taken.....	18	Mus rattus.....	529
Rats and mongoose examined macroscopically.....	1,735	Mus musculus.....	571
Rats and mongoose plague infected.....	None.	Last case of rat plague, Paauhau Sugar Co.,	
		Aug. 29, 1914.	
		Last case of human plague, Paauhau Sugar Co.,	
		Aug. 16, 1914.	

PORTO RICO—PLAGUE PREVENTION.

The table given below shows the number of rats, mice, and mongoose examined in Porto Rico for plague infection during the two weeks ended July 16, 1915. No plague infection was found.

Place.	Rats.	Mice.	Mongoose.
San Juan.....	228	22	.....
Puerta de Tierra.....	97	5	.....
Santurce.....	157	3	1
Total.....	482	30	1

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

IN CERTAIN STATES AND CITIES.

CEREBROSPINAL MENINGITIS.

State Reports for June, 1915.

Place.	New cases reported.	Place.	New cases reported.
California:		Virginia:	
Los Angeles County—		Accomac County.....	1
Los Angeles.....	2	Albemarle County.....	1
San Joaquin County—		Alleghany County.....	1
Stockton.....	1	Augusta County.....	1
Total.....	3	Bedford County.....	1
		Botetourt County.....	1
Iowa:		Clarke County.....	1
Jasper County.....	1	Fluvanna County.....	1
Lee County.....	1	Franklin County.....	1
Total.....	2	Hanover County.....	1
		Henry County.....	1
New York:		Lunenburg County.....	1
Erie County.....	7	Orange County.....	1
Greene County.....	1	Rockingham County.....	1
Monroe County.....	1	Scott County.....	1
Orange County.....	1	Smyth County.....	1
Westchester County.....	2	Wise County.....	1
New York City.....	21	Wythe County.....	1
Total.....	33	Total.....	19
Texas:			
Galveston County.....	1		
El Paso County.....	1		
Total.....	2		

City Reports for Week Ended July 17, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.....	2	—	Manchester, N. H.....	1	1
Bridgeport, Conn.....	—	1	Milwaukee, Wis.....	2	2
Chicago, Ill.....	1	—	Philadelphia, Pa.....	1	—
Cincinnati, Ohio.....	1	1	Providence, R. I.....	—	1
Jersey City, N. J.....	—	1	Saginaw, Mich.....	—	1
Lawrence, Mass.....	—	1	St. Louis, Mo.....	2	2
Lexington, Ky.....	1	1			

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2311.

ERYSIPELAS.**City Reports for Week Ended July 17, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1	.....	Los Angeles, Cal.....	1	.....
Baltimore, Md.....	.....	1	Milwaukee, Wis.....	1	.....
Braddock, Pa.....	1	.....	Oakland, Cal.....	1	.....
Buffalo, N. Y.....	2	1	Philadelphia, Pa.....	.....	2
Cambridge, Mass.....	.....	1	Pittsburgh, Pa.....	3	2
Chelsea, Mass.....	.....	1	Portland, Oreg.....	1	.....
Chicago, Ill.....	10	1	Providence, R. I.....	.....	1
Cincinnati, Ohio.....	2	.....	Reading, Pa.....	1	.....
Cleveland, Ohio.....	3	.....	St. Louis, Mo.....	1	.....
Detroit, Mich.....	1	.....	San Francisco, Cal.....	2	1
Kalamazoo, Mich.....	1	.....	Springfield, Ill.....	1	.....

GONORRHEA.**State Report for June, 1915.**

During the month of June, 1915, 111 cases of gonorrhea were notified in California.

LEPROSY.**California.**

The State Board of Health of California reported that during the month of June, 1915, two cases of leprosy were notified in California.

Michigan—Ann Arbor.

The health officer of Ann Arbor, Mich., reported that during the week ended July 17, 1915, one case of leprosy was notified in that city.

MALARIA.**State Reports for June, 1915.**

During the month of June, 1915, cases of malaria were notified in States as follows: Arkansas, 300; California, 60; Virginia, 1,030.

City Reports for Week Ended July 17, 1915.

During the week ended July 17, 1915, malaria was reported in cities as follows: Memphis, Tenn., 5 deaths; Montclair, N. J., 1 case; New Orleans, La., 2 deaths; Plainfield, N. J., 1 case.

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2311.

PELLAGRA.**Kansas—Cherokee County.**

- Collaborating Epidemiologist Crumbine reported that during the month of June, 1915, two cases of pellagra were notified in Cherokee County, Kans.

PELLAGRA—Continued.**State Reports for June, 1915.**

During the month of June, 1915, cases of pellagra were notified in States as follows: Arkansas, 197; California, 2; Texas, 45; Virginia, 86.

City Reports for Week Ended July 17, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Charleston, S. C.....		2	New Orleans, La.....		2
Galveston, Tex.....		1	Newton, Mass.....	1	
Memphis, Tenn.....	4	6	Richmond, Va.....	1	2
Mobile, Ala.....		2	Washington, D. C.....	3	
Nashville, Tenn.....	2	1	Wilmington, N. C.....	4	4

PLAGUE.**California—Plague-Infected Squirrels Found.**

Passed Asst. Surg. Hurley reported that plague-infected ground squirrels were found in California as follows: In Alameda County, 1 squirrel, shot July 14, 1915, on the People's Water Co. land, southwest of Grizzly Peak, east of the city of Oakland; in Contra Costa County, 1 squirrel, shot July 1, 1915, on the Skow lease of the People's Water Co. land, located about $7\frac{1}{2}$ miles east of San Pablo; in San Benito County, 1 squirrel, shot July 10, 1915, on the J. D. Watson ranch, near Hollister, and 2 squirrels, found dead on the ranch of L. J. Abrams, about $2\frac{1}{2}$ miles southeast of Vallecitos.

The squirrel shot in Alameda County July 14 was the first plague-infected squirrel found in that county since August 7, 1914, and was located on what is known as the Squirrel Free Zone.

The two squirrels found dead on the Abrams ranch were located on new territory where hunting operations had been begun.

Washington—Seattle—Plague-Infected Rat Found.

Surg. Lloyd reported by telegraph July 28, 1915, that a plague-infected rat had been found at the intersection of Second and Marion Streets, Seattle, Wash.

PNEUMONIA.**City Reports for Week Ended July 17, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill.....	72	39	Philadelphia, Pa.....	11	7
Cleveland, Ohio.....	12	8	Pittsburgh, Pa.....	7	7
Fall River, Mass.....	1		Reading, Pa.....	1	2
Los Angeles, Cal.....	4	3	San Francisco, Cal.....	1	5
Manchester, N. H.....	1	1	Schenectady, N. Y.....	1	
Newton, Mass.....	1	1			

POLIOMYELITIS (INFANTILE PARALYSIS).**State Reports for June, 1915.**

Place.	New cases reported.	Place.	New cases reported.
California:		Virginia:	
Alameda County—		Accomac County.....	1
Oakland.....	1	Amelia County.....	1
Fresno County—		Franklin County.....	1
Coalinga.....	1	Halifax County.....	2
Fresno.....	3	Lee County.....	2
Santa Cruz County—		Louisa County.....	1
Santa Cruz.....	1	Nansemond County.....	2
Total.....	6	Orange County.....	2
New York:		Prince Edward County.....	4
Montgomery County.....	1	Scott County.....	1
Niagara County.....	2	Warren County.....	1
New York City.....	7	Washington County.....	1
Total.....	10	Wise County.....	1
		Total.....	20

City Reports for Week Ended July 17, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	6	.....	Lincoln, Nebr.....	1	.....
Baltimore, Md.....	2	.....	Newton, Mass.....	1	.....
Chicago, Ill.....	2	1	Pittsburgh, Pa.....	1	.....
Cleveland, Ohio.....	2	.....	Worcester, Mass.....	1	1

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2311.

SMALLPOX.**Kansas.**

Collaborating Epidemiologist Crumbine reported that during the week ended July 24, 1915, cases of smallpox were notified in counties of Kansas as follows: Crawford, 4; Douglas, 1; Greenwood, 1; Labette, 2; Rawlins, 1; Reno, 1; Sedgwick, 7.

Massachusetts—New Bedford—Virulent Smallpox.

Acting Asst. Surg. Cody reported by telegraph July 28, 1915, that two new cases of smallpox had been notified in New Bedford, Mass. Since May 15, 1915, 23 cases of this disease, with 9 deaths, have been reported at New Bedford.

Minnesota.

Collaborating Epidemiologist Bracken reported by telegraph August 3, 1915, that new foci of smallpox infection had been reported in Minnesota, cases of the disease having been notified as follows: Jackson County, Heron Lake, 1; Olmsted County, Salem Township, 2; Pipestone County, Altona Township, 1; Stearns County, Melrose, 1.

SMALLPOX—Continued.

Texas—Laredo.

Acting Asst. Surg. Hamilton reported August 3, 1915, a case of smallpox, notified in Laredo, Tex.

State Reports for June, 1915.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
California:						
Imperial County.....	5				5	
Calexico.....	3				3	
Kern County.....	1			1		
Bakersfield.....	2				1	1
Los Angeles County—						
Los Angeles.....	1				1	
Mariposa County.....	3				3	
Nevada County—						
Grass Valley.....	1					1
Sacramento County—						
Sacramento.....	1			1		
San Bernardino County.....	1				1	
San Bernardino.....	1					1
San Francisco County—						
San Francisco.....	1					1
Santa Clara County.....	3			1	2	
Tulare County—						
Visalia.....	1				1	
Total.....	24			3	17	4
New York:						
Cayuga County.....	1					1
Columbia County.....	1				1	
Erie County.....	1					1
New York City.....	1					1
Total.....	4				1	3

Miscellaneous State Reports.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Arkansas (June 1-30):			Colorado—Continued.		
Counties—			El Paso County—		
Chicot.....	1		Colorado Springs.....	3	
Clay.....	12		Logan County.....	1	
Lawrence.....	1		Mesa County.....	1	
Miller.....	13		Pitkin County.....	1	
Ouachita.....	1		Prowers County.....	3	
Washington.....	1		Total.....	28	
White.....	6				
Total.....	35		Colorado (Mar. 1-31):		
Colorado (Jan. 1-31):			Denver County—		
Clear Creek County.....	1		Denver.....	10	
Denver County—			El Paso County—		
Denver.....	17		Colorado Springs.....	3	
El Paso County—			Logan County.....	16	
Colorado Springs.....	8		Phillips County.....	1	
Otero County.....	2		Prowers County.....	3	
Teller County.....	11		Weld County.....	2	
Total.....	39		Total.....	35	
Colorado (Feb. 1-28):			Colorado (Apr. 1-30):		
Boulder County.....	1		Denver County—		
Denver County—			Denver.....	1	
Denver.....	18		Elbert County.....	12	
			Logan County.....	13	

SMALLPOX—Continued.

Miscellaneous State Reports—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Colorado—Continued.			Iowa—Continued.		
Ouray County.....	1		Counties—Continued.		
Pueblo County—			Ringgold.....	3	
Pueblo.....	1		Scott.....	65	
Weld County.....	1		Shelby.....	1	
Total.....	29		Taylor.....	3	
Colorado (May 1-31):			Van Buren.....	7	
Bent County.....	1		Washington.....	5	
Denver County—			Webster.....	1	
Denver.....	1		Winneshek.....	2	
Elbert County.....	26		Total.....	170	
Jackson County.....	1				
Lincoln County.....	4		Texas (June 1-30):		
Logan County.....	3		Counties—		
Phillips County.....	1		Bee.....	1	
Prowers County.....	1		Dallas.....	4	
Total.....	38		El Paso.....	3	
Colorado (June 1-30):			Hale.....	10	
Denver County—			Hill.....	7	
Denver.....	6		Hunt.....	1	
Logan County.....	7		Kaufman.....	16	
Phillips County.....	5		Kent.....	30	
Pueblo County—			Navarro.....	1	
Pueblo.....	2		Palo Pinto.....	5	
Total.....	20		Roberts.....	2	
Iowa (June 1-30):			Smith.....	19	
Counties—			Swisher.....	5	
Adams.....	6		Tarrant.....	12	
Allamakee.....	1		Taylor.....	5	
Appanoose.....	2		Throckmorton.....	5	
Boone.....	4		Trinity.....	6	
Buena Vista.....	6		Young.....	3	
Butler.....	1		Total.....	135	
Calhoun.....	1				
Carroll.....	1		Virginia (June 1-30):		
Cass.....	6		Amherst County.....	6	
Guthrie.....	3		Dinwiddie County.....	4	
Hamilton.....	3		Henrico County—		
Hardin.....	3		Richmond.....	10	
Harrison.....	2		Loudoun County.....	3	
Jasper.....	4		Lunenburg County.....	8	
Jones.....	1		Mecklenburg County.....	15	
Linn.....	6		Page County.....	4	
Mahaska.....	9		Prince Edward County.....	1	
Monroe.....	3		Rappahannock County.....	13	
Muscatine.....	2		Roanoke County—		
O'Brien.....	2		Roanoke.....	1	
Page.....	1		Southampton County.....	19	
Polk.....	16		Stafford County.....	5	
			Washington County.....	26	
			Total.....	115	

City Reports for Week Ended July 17, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	2		Little Rock, Ark.....	1	
Brownsville, Tex.....	6	2	Madison, Wis.....	1	
Butte, Mont.....	2		New Orleans, La.....	1	
Charleston, S. C.....	6		Ogden, Utah.....	1	
Cincinnati, Ohio.....	1		Portland, Oreg.....	9	
Concord, N. H.....	1		Racine, Wis.....	3	
Davenport, Iowa.....	11		Rochester, N. Y.....	1	
Detroit, Mich.....	4		Rock Island, Ill.....	1	
Galesburg, Ill.....	1		Springfield, Ill.....	3	
Kansas City, Kans.....	1		Washington, D. C.....	4	
Lincoln, Nebr.....		1			

SYPHILIS.**State Report for June, 1915.**

During the month of June, 1915, 76 cases of syphilis were notified in California.

TETANUS.**City Reports for Week Ended July 17, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Butte, Mont.....	1	1	Los Angeles, Cal.....		1
Chicago, Ill.....	1	1	Lowell, Mass.....	1	
Columbus, Ohio.....	1	1	Memphis, Tenn.....		1
Lexington, Ky.....	1	1	Richmond, Va.....		1

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2311.

TYPHOID FEVER.**State Reports for June, 1915.**

Place.	New cases reported.	Place.	New cases reported.
Arkansas:		California—Continued.	
Bradley County.....	1	Orange County.....	2
Chicot County.....	10	Placer County—	
Clay County.....	1	Rocklin.....	2
Cleveland County.....	2	Sacramento County—	
Conway County.....	1	Sacramento.....	2
Dallas County.....	1	San Bernardino County—	
Drew County.....	1	Ontario.....	1
Faulkner County.....	1	San Diego County—	
Hot Spring County.....	1	San Diego.....	1
Howard County.....	3	San Francisco County—	
Izard County.....	1	San Francisco.....	13
Johnson County.....	10	San Joaquin County—	
Lafayette County.....	4	Stockton.....	1
Lee County.....	4	San Mateo County.....	1
Logan County.....	2	Sonoma County.....	1
Miller County.....	2	Santa Rosa.....	2
Polk County.....	5	Stanislaus County.....	2
Stone County.....	1	Sutter County.....	1
Washington County.....	2	Tehama County—	
White County.....	1	Corning.....	1
Total.....	54	Yuba County—	
California:		Wheatland.....	1
Alameda County—		Total.....	76
Alameda.....	2	New York:	
Berkeley.....	3	Albany County.....	6
Oakland.....	8	Allegany County.....	2
Colusa County.....	4	Broome County.....	3
Contra Costa County—		Cattaraugus County.....	4
Richmond.....	1	Cayuga County.....	1
Fresno County—		Chemung County.....	1
Fresno.....	3	Columbia County.....	2
Kern County.....	1	Dutchess County.....	2
Bakersfield.....	3	Erie County.....	9
Lassen County.....	1	Essex County.....	1
Los Angeles County—		Franklin County.....	1
Alhambra.....	3	Greene County.....	1
Azusa.....	1	Herkimer County.....	3
Glendale.....	1	Jefferson County.....	12
Long Beach.....	2	Livingston County.....	1
Los Angeles.....	10	Monroe County.....	9
Mariposa County.....	1	Nassau County.....	1
Napa County—		Niagara County.....	2
Napa.....	1	Oneida County.....	2

TYPHOID FEVER—Continued.

State Reports for June, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
New York—Continued.		Virginia—Continued.	
Ontario County.....	1	Culpeper County.....	1
Orange County.....	11	Elizabeth City County.....	1
Orleans County.....	2	Dinwiddie County.....	3
Oswego County.....	3	Petersburg.....	1
Otsego County.....	2	Essex County.....	1
Rensselaer County.....	6	Fauquier County.....	4
Rockland County.....	5	Floyd County.....	2
St. Lawrence County.....	5	Franklin County.....	2
Saratoga County.....	3	Giles County.....	3
Schenectady County.....	4	Gloucester County.....	3
Steuben County.....	4	Grayson County.....	2
Suffolk County.....	1	Greene County.....	2
Tompkins County.....	1	Greensville County.....	2
Ulster County.....	3	Halifax County.....	5
Warren County.....	1	Hanover County.....	4
Washington County.....	2	Henrico County.....	4
Wayne County.....	6	Richmond.....	3
Westchester County.....	15	Henry County.....	6
New York City.....	117	Highland County.....	3
Total.....	255	Isle of Wight County.....	7
Texas:		James City County.....	2
Archer County.....	2	King and Queen County.....	1
Comal County.....	3	King William County.....	2
Coleman County.....	1	Lee County.....	6
Dallas County.....	16	Loudoun County.....	6
Deaf Smith County.....	2	Louisa County.....	2
El Paso County.....	8	Lunenburg County.....	2
Eastland County.....	4	Mathews County.....	7
Galveston County.....	14	Mecklenburg County.....	1
Grayson County.....	1	Montgomery County.....	1
Hale County.....	2	Nansemond County.....	12
Johnson County.....	9	Nelson County.....	1
Kaufman County.....	1	New Kent County.....	1
Midland County.....	2	Norfolk County.....	15
Navarro County.....	1	Northampton County.....	3
Palo Pinto County.....	2	Nottoway County.....	1
Roberts County.....	1	Orange County.....	3
Smith County.....	1	Pittsylvania County.....	5
Swisher County.....	1	Princess Anne County.....	1
Somerville County.....	1	Prince Edward County.....	7
Trinity County.....	2	Prince George County.....	1
Taylor County.....	4	Prince William County.....	2
Travis County.....	4	Rappahannock County.....	1
Tarrant County.....	19	Roanoke County.....	2
Upshur County.....	8	Roanoke.....	1
Total.....	109	Rockbridge County.....	1
Virginia:		Rockingham County.....	6
Accomac County.....	9	Russell County.....	5
Albemarle County.....	4	Scott County.....	3
Alexandria County.....	1	Shenandoah County.....	5
Amelia County.....	1	Smyth County.....	8
Appomattox County.....	1	Southampton County.....	13
Augusta County.....	2	Surry County.....	2
Botetourt County.....	4	Sussex County.....	2
Brunswick County.....	3	Tazewell County.....	4
Buckingham County.....	2	Warren County.....	1
Campbell County.....	3	Warwick County.....	
Lynchburg.....	2	Newport News.....	3
Caroline County.....	4	Washington County.....	7
Carroll County.....	5	Westmoreland County.....	4
Chesterfield County.....	1	Wise County.....	4
		Wythe County.....	3
		Total.....	258

TYPHOID FEVER—Continued.

City Reports for Week Ended July 17, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1	1	Milwaukee, Wis.....	4	.....
Alameda, Cal.....	1	.....	Mobile, Ala.....	3	.....
Altoona, Pa.....	2	1	Nashville, Tenn.....	9	1
Baltimore, Md.....	25	3	Newark, N. J.....	5	.....
Bellingham, Wash.....	4	.....	New Bedford, Mass.....	1	.....
Binghamton, N. Y.....	1	.....	Newburyport, Mass.....	7	.....
Boston, Mass.....	12	2	New Haven, Conn.....	3	.....
Buffalo, N. Y.....	3	.....	New Orleans, La.....	7	.....
Cairo, Ill.....	1	1	Niagara Falls, N. Y.....	2	.....
Cambridge, Mass.....	1	.....	North Adams, Mass.....	.....	1
Charleston, S. C.....	14	3	Northampton, Mass.....	.....	1
Chelsea, Mass.....	1	.....	Oakland, Cal.....	2	.....
Chicago, Ill.....	24	.....	Orange, N. J.....	.....	.....
Cincinnati, Ohio.....	3	1	Philadelphia, Pa.....	13	1
Cleveland, Ohio.....	5	1	Pittsburgh, Pa.....	1	1
Columbus, Ohio.....	2	.....	Plainfield, N. J.....	.....	1
Cumberland, Md.....	2	.....	Portland, Me.....	1	.....
Danville, Ill.....	1	1	Providence, R. I.....	2	.....
Detroit, Mich.....	9	1	Reading, Pa.....	3	.....
Duluth, Minn.....	2	.....	Richmond, Va.....	6	1
Erie, Pa.....	1	.....	Sacramento, Cal.....	1	.....
Evansville, Ind.....	3	.....	St. Louis, Mo.....	6	2
Fall River, Mass.....	3	1	San Francisco, Cal.....	6	.....
Galveston, Tex.....	.....	1	South Bethlehem, Pa.....	1	.....
Harrisburg, Pa.....	2	.....	Springfield, Mass.....	2	.....
Hartford, Conn.....	2	1	Syracuse, N. Y.....	1	.....
Kalamazoo, Mich.....	1	.....	Tacoma, Wash.....	1	.....
Kokomo, Ind.....	1	.....	Toledo, Ohio.....	8	.....
Lexington, Ky.....	2	.....	Washington, D. C.....	10	1
Lincoln, Nebr.....	1	1	West Hoboken, N. J.....	1	.....
Little Rock, Ark.....	2	.....	Wheeling, W. Va.....	1	.....
Los Angeles, Cal.....	3	1	Wilkes-Barre, Pa.....	1	.....
Lowell, Mass.....	1	1	Wilmington, N. C.....	1	.....
Manchester, N. H.....	.....	1	Worcester, Mass.....	2	1
Medford, Mass.....	1	.....	York, Pa.....	5	.....
Memphis, Tenn.....	15	.....		

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for June, 1915.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
Arkansas.....	3	15	11	New York.....	1,950	10,762	1,432
California.....	327	1,470	130	Texas.....	50	.....	61
Iowa.....	15	.....	14	Virginia.....	49	175	54

City Reports for Week Ended July 17, 1915.

City.	Population as of July 1, 1915. (Estimated by United States Census Bureau.)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Over 500,000 inhabitants:											
Baltimore, Md.	584,605	186	15	1	33	.....	11	1	35	18
Boston, Mass.	745,139	197	62	4	74	.....	48	1	49	23
Chicago, Ill.	2,447,045	586	91	13	233	4	32	1	254	67	
Cleveland, Ohio	656,975	150	26	3	104	3	7	.....	48	14
Detroit, Mich.	554,717	162	40	2	11	2	10	.....	20	15
Philadelphia, Pa.	1,683,664	401	32	5	244	7	10	.....	133	41
Pittsburgh, Pa.	571,984	148	12	4	75	4	18	2	28	20	
St. Louis, Mo.	745,988	183	27	1	78	2	10	.....	35	12

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended July 17, 1915—Continued.

City.	Population as of July 1, 1915. (Es- timated by United States Census Bureau.)	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 300,000 to 500,000 inhabit- ants:										
Buffalo, N. Y.	461,335	129	6	2	173	3	12	1	37	
Cincinnati, Ohio.	406,706	136	11	1	34		4		26	19
Jersey City, N. J.	300,133	82	23	1	27	2	12		16	7
Los Angeles, Cal.	465,367	104	11		17		5		38	18
Milwaukee, Wis.	428,062	83	3		13		5	1	17	6
Newark, N. J.	399,000	101	16		26		2		44	11
New Orleans, La.	366,484		9		1				31	15
San Francisco, Cal.	416,912	124	15	1	3		1		39	14
Washington, D. C.	358,679	118	4		22		10		11	21
From 200,000 to 300,000 inhabit- ants:										
Columbus, Ohio.	209,722	59	3		7				9	8
Portland, Oreg.	272,833	35	1		3		2		9	3
Providence, R. I.	250,025	57	3		5		4	1	14	5
Rochester, N. Y.	250,747	61			21				7	
From 100,000 to 200,000 inhabit- ants:										
Bridgeport, Conn.	118,434	37	3	3			1		5	
Cambridge, Mass.	111,669	21	5		9		3		9	2
Camden, N. J.	104,349		4		3				10	
Dayton, Ohio.	125,509	19								5
Fall River, Mass.	126,904	39			2		4		6	2
Grand Rapids, Mich.	125,759		3	1	1		1		2	
Hartford, Conn.	108,969	39	3	1			1	1	6	
Lowell, Mass.	112,124	28	1		4				6	4
Lynn, Mass.	100,316	19	4		3		4		1	
Memphis, Tenn.	146,113		2	1					11	3
Nashville, Tenn.	115,978	40							6	5
New Bedford, Mass.	114,694	28	1		34				8	3
New Haven, Conn.	147,095				1		1		9	1
Oakland, Cal.	190,803		1		4				2	3
Reading, Pa.	105,094	29	2		15		2	1	3	2
Richmond, Va.	154,674	59					1		11	5
Springfield, Mass.	103,216	30	2	1	15				2	1
Syracuse, N. Y.	152,534	28	5		21				1	3
Tacoma, Wash.	108,094						1		4	
Toledo, Ohio.	187,840	53	3		12		2			9
Trenton, N. J.	109,212	28			7	1	1		2	2
Worcester, Mass.	160,523	33	8		1		3		9	
From 50,000 to 100,000 inhabit- ants:										
Akron, Ohio.	82,958	15	4				1		1	3
Altoona, Pa.	57,606	9	1						1	
Atlantic City, N. J.	55,806	7	1		11				2	
Bayonne, N. J.	67,582		1		2				2	
Berkeley, Cal.	54,879	8	3						1	
Binghamton, N. Y.	53,082	15	2	1						1
Brockton, Mass.	65,746	13			19				8	2
Canton, Ohio.	59,139	11	1		3		1		1	
Charleston, S. C.	60,427	39	1							3
Covington, Ky.	56,320	8	1				1			2
Duluth, Minn.	91,913				2		4		3	
Erie, Pa.	73,798	20	5						7	
Evansville, Ind.	72,125	20								3
Harrisburg, Pa.	70,754	13							4	2
Johnstown, Pa.	66,585	14	6	1					10	2
Kansas City, Kans.	96,854				6		1		5	3
Lancaster, Pa.	50,269			1	1		1		4	
Lawrence, Mass.	98,197	33	2	1	5		1		6	5
Little Rock, Ark.	55,158	25	2						1	
Malden, Mass.	50,067	6	2		7				3	2
Manchester, N. H.	76,959	21			1		1		2	2
Mobile, Ala.	56,536	25							1	3
New Britain, Conn.	52,203								3	3
Passaic, N. J.	69,010	17	4		24		4		1	2
Pawtucket, R. I.	58,156	12	1	1						
Portland, Me.	63,014	24			2		5			3
Sacramento, Cal.	64,806	10							5	1
Saginaw, Mich.	54,815	10	1						2	1

* Population Apr. 15, 1910; no estimate made.

DIPHThERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended July 17, 1915—Continued.

City.	Population as of July 1, 1915. (Es- timated by United States Census Bureau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabit- ants—Continued.										
San Diego, Cal.	51,115	15	5	—	—	—	5	—	3	—
Schenectady, N. Y.	95,265	15	4	—	5	—	3	—	—	1
South Bend, Ind.	67,030	16	—	—	8	—	1	—	—	1
Springfield, Ill.	59,468	12	1	—	2	—	—	—	1	1
Wilkes-Barre, Pa.	75,218	16	1	—	8	—	—	—	1	—
York, Pa.	50,543	—	1	—	—	—	—	—	1	—
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27,031	6	—	—	—	—	1	—	1	1
Bellingham, Wash.	31,609	—	—	—	1	—	—	—	—	—
Butler, Pa.	26,587	11	—	—	—	—	1	—	—	1
Butte, Mont.	42,918	—	1	—	2	—	—	—	21	1
Chelsea, Mass.	32,452	8	3	—	4	—	2	—	2	—
Chicopee, Mass.	28,688	10	—	—	2	—	1	—	—	—
Cumberland, Md.	25,564	5	1	—	—	—	1	1	4	—
Danville, Ill.	31,554	13	1	1	1	—	—	—	2	1
Dubuque, Iowa	39,650	—	—	—	—	—	—	—	—	1
East Orange, N. J.	41,155	1	1	—	3	—	1	—	3	—
Elgin, Ill.	27,844	7	—	—	2	—	—	—	—	1
Everett, Mass.	38,307	3	2	—	—	—	—	—	5	—
Everett, Wash.	33,767	4	—	—	—	—	—	—	—	1
Fitchburg, Mass.	41,144	6	3	—	—	—	—	—	2	—
Galveston, Tex.	41,076	19	1	—	—	—	—	—	—	3
Haverhill, Mass.	47,774	5	2	—	3	—	—	—	—	1
Kalamazoo, Mich.	47,364	14	4	—	1	—	1	—	1	2
Kenosha, Wis.	30,319	4	—	—	—	—	—	—	—	1
La Crosse, Wis.	31,522	12	—	—	—	—	—	—	2	—
Lexington, Ky.	39,703	18	4	1	1	—	1	—	4	2
Lincoln, Nebr.	46,028	19	1	—	—	—	—	—	—	—
Loraine, Ohio.	35,662	—	1	—	1	—	—	—	3	—
Lynchburg, Va.	32,385	18	—	—	—	—	—	—	2	4
Madison, Wis.	30,084	—	1	—	3	—	—	—	1	—
Montclair, N. J.	25,550	2	—	—	—	—	—	—	1	—
New Castle, Pa.	40,351	—	1	—	—	—	—	—	1	—
Newport, Ky.	31,722	5	—	—	—	—	—	—	2	2
Newport, R. I.	29,631	3	—	—	—	—	—	—	1	—
Newton, Mass.	43,085	4	—	—	6	—	2	—	—	—
Niagara Falls, N. Y.	36,240	13	—	—	3	—	—	—	—	3
Norristown, Pa.	30,833	4	2	—	2	—	—	—	—	—
Ogden, Utah.	30,466	12	—	—	1	—	—	—	1	—
Orange, N. J.	32,524	11	1	—	1	—	—	—	2	1
Pasadena, Cal.	43,859	8	1	—	—	—	—	—	3	3
Perth Amboy, N. J.	39,725	—	3	—	4	—	2	—	1	—
Pittsfield, Mass.	37,580	5	—	—	—	—	—	—	2	1
Portsmouth, Va.	38,610	11	—	—	3	—	—	—	—	—
Racine, Wis.	45,507	8	—	—	9	—	—	—	—	—
Rock Island, Ill.	27,951	9	3	—	—	—	—	—	1	1
Steubenville, Ohio.	26,631	13	—	—	—	—	—	—	—	—
Stockton, Cal.	34,508	—	—	—	—	—	—	—	2	3
Taunton, Mass.	35,957	11	—	—	11	—	1	—	5	—
Waltham, Mass.	30,129	5	2	—	16	1	1	—	—	1
West Hoboken, N. J.	41,893	3	2	—	3	—	—	—	1	—
Wheeling, W. Va.	43,097	9	—	—	10	—	—	—	1	1
Williamsport, Pa.	33,495	8	2	—	—	—	—	—	—	—
Wilmington, N. C.	28,264	19	—	—	1	—	—	—	—	—
Woonsocket, R. I.	43,355	—	—	—	—	—	2	—	—	—
Zanesville, Ohio.	30,406	—	—	—	2	—	—	—	—	—
From 10,000 to 25,000 inhabit- ants—										
Ann Arbor, Mich.	14,979	9	—	—	—	—	—	—	6	—
Beaver Falls, Pa.	13,316	—	—	—	—	—	1	—	—	—
Braddock, Pa.	21,310	—	—	—	1	—	1	—	—	—
Cairo, Ill.	15,593	12	—	—	—	—	—	—	—	3
Clinton, Mass.	13,075	2	—	—	—	—	—	—	3	—
Coffeyville, Kans.	16,765	—	2	1	—	—	—	—	1	1
Concord, N. H.	22,480	10	—	—	—	—	—	—	—	—
Galesburg, Ill.	23,923	7	—	—	—	—	—	—	—	—
Kearny, N. J.	22,753	7	—	—	1	—	—	—	3	—
Key West, Fla.	21,437	4	—	—	—	—	—	—	—	—

¹ Population Apr. 15, 1910; no estimate made.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended July 17, 1915—Continued.

City:	Population as of July 1, 1915. (Es- timated by United States Census Bureau.)	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabit- ants—Continued.										
Kokomo, Ind.	20,312	4			2					
Marquette, Wis.	114,610	3			2		2			
Melrose, Mass.	17,166	4								1
Morristown, N. J.	13,158	4							1	
Muscatine, Iowa.	17,287	3			2					
Nanticoke, Pa.	22,441	5								
Newburyport, Mass.	15,195	3			6				1	
New London, Conn.	20,771	10	2							2
North Adams, Mass.	122,019	6							1	
Northampton, Mass.	19,846	8			1		4		1	1
Phoenix, Ariz.	17,798	7								1
Plainfield, N. J.	23,280	4							2	
Rutland, Vt.	14,624	1	1				1			1
Saratoga Springs, N. Y.	12,842	9		1	2				1	
South Bethlehem, Pa.	23,522	1			3				8	1
Steelton, Pa.	15,337	1							3	
Wilkinsburg, Pa.	22,361	3							3	
Woburn, Mass.	15,862	2								

1 Population Apr. 15, 1910; no estimate made.

FOREIGN REPORTS.

AUSTRIA-HUNGARY.

Cholera—Galicia.

During the two weeks ended July 17, 1915, 5 cases of cholera were notified in Galicia.

CHINA.

Plague—Plague-Infected Rats—Hongkong.

During the two weeks ended July 12, 1915, 11 cases of plague with 11 deaths were notified at Hongkong. During the same period, out of 4,308 rats examined at Hongkong, 7 were found plague infected.

Plague-Infected Rat—Shanghai.

During the week ended June 19, 1915, out of 199 rats examined at Shanghai, 1 rat was found plague infected.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified in Habana as follows:

Disease.	Ten-day period ended July 10, 1915.			Ten-day period ended July 20, 1915.		
	New cases.	Deaths.	Remain- ing July 10.	New cases.	Deaths.	Remain- ing July 20.
Diphtheria.....	4			11		6
Leprosy.....	1	1	250		3	247
Malaria.....				3		13
Measles.....	3		6			4
Paratyphoid fever.....	3		4	8		12
Plague.....	21		3			21
Scarlet fever.....						5
Typhoid fever.....	17	4	47	17	3	35
Varicella.....	1		7	1		5

¹ From the interior of the Republic.

² From Guanabacoa, vicinity of Habana.

GREAT BRITAIN.

Examination of Rats—Liverpool.

During the two weeks ended July 3, 1915, 387 rats were examined at Liverpool. No plague infection was found. The total number of rats examined from July 25, 1914, to July 3, 1915, was 10,535.

PERSIA AND THE PERSIAN GULF.

Plague—Bahrein—Mohammerah.

Three cases of plague were notified at Mohammerah, Persia, April 10, 1915. During the month of April, 1915, plague was reported continuously present on the island of Bahrein, Persian Gulf.

UNION OF SOUTH AFRICA.

Plague—Cape Province.

Two fatal cases of plague occurred June 5, 1915, at Dordrecht, district of Wodehouse, Cape Province. The total number of cases notified from February 5 to June 5, 1915, was 38, with 22 deaths.

TYPHUS FEVER.

Reports Received During Week Ended Aug. 6, 1915.¹

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Tientsin.....	June 6-12.....		1	
Great Britain and Ireland:				
Dublin.....	June 27-July 3....	1		
New Castle.....	do.....	1		
Turkey in Asia:				
Beirut.....	May 27-June 2....	2	1	
Harput.....	May 1-31.....			Present; in vicinity.
Tripoli.....	May 9-15.....	1	1	

Reports Received from June 26 to July 30, 1915.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	Apr. 25-May 8....	645		Mainly among soldiers, prisoners of war, and persons from Galicia; 6 among the civil population, of which 1 in Vienna.
Hungary:				
Budapest.....	May 16-June 12...	12	4	
Azores:				
Terceira.....	May 23-29.....	1		July 24, 1915; present.
Canary Islands:				
Santa Cruz de Tenerife....	May 16-June 19....		2	
China:				
Hungtaohotze Station.....	Apr. 19-25.....	1		On Eastern Chinese Ry.
Mukden.....	June 6-12.....			Present.
Cuba:				
Santiago.....	July 4-10.....	2	2	
Dutch East Indies:				
Java.....	Apr. 25-May 1....	13	3	Mid-Java.
Do.....	Apr. 27-May 10....	22	4	West Java.
Egypt:				
Alexandria.....	May 21-June 17....	119	35	
Cairo.....	May 7-June 3....	79	96	
Port Said.....	do.....	2	3	
Germany.....	May 16-22.....	12		In German soldiers and 1 prison-camp employee; among prisoners of war in 14 districts and in Saxony and Hesse.
Do.....	June 6-19.....	20		Among military: Present in prison camps.
Aix la Chapelle.....	May 30-June 5....		1	
Bremen.....	May 30-June 12....	1	1	
Breslau.....	May 30-June 5....	5		
Konigsberg.....	June 6-12.....	3		
Leipzig.....	do.....		1	

¹ From medical officers of the Public Health Service, American consuls, and other sources.

TYPHUS FEVER—Continued.

Reports Received from June 26 to July 30, 1915—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Great Britain and Ireland:				
Dublin.....	May 23-June 12...	5	.....
Glasgow.....	May 29.....	1	.....
Greece:				
Athens.....	June 14-25.....	.....	1	
Saloniki.....	May 30-June 19...	.....	10	
Italy:				
Florence.....	May 1-31.....	5	1	
Turin.....	May 17-23.....	1	.....
Japan:				
Tokyo.....	June 7-13.....	2	.....
Mexico:				
Aguascalientes.....	June 21-27.....	.....	1	
Russia:				
Moscow.....	May 2-June 5.....	148	42	
Petrograd.....	May 9-29.....	8	.....
Riga.....	Mar. 1-31.....	1	1	
Do.....	June 6-12.....	1	.....
Warsaw.....				Sept. 27-Oct. 31, 1914: Cases, 31; Nov. 1-28, 1914: Cases, 31; deaths, 1. Maximum incidence, Nov. 22-28: Cases, 20; deaths, 1.
Serbia.....	Apr. 27.....	.....	.....	Prevalent.
Switzerland:				
Zurich.....	May 30-June 5.....	1	.....
Turkey in Asia:				
Adana.....	May 9-15.....	.....	.....	Present.
Harput.....	Apr. 1-30.....	.....	.....	Do.
Jaffa.....	Apr. 25-May 29...	11	3	
Mersina.....	May 9-29.....	2	2	
Tarsus.....	do.....	.....	.....	Do.
Trebizond.....				October, 1914-May 22, 1915: 6,000 fatal cases (estimated).

CHOLERA, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended Aug. 6, 1915.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Galicia.....	July 3-17.....	5	.....
Dutch East Indies:				
Java—				
Batavia.....	May 30-June 5....	5	5	
India:				
Akyab.....	May 23-29.....	.....	1	
Bassein.....	May 30-June 5....	.....	3	
Calcutta.....	do.....	.....	16	
Rangoon.....	June 6-12.....	1	1	
Indo China:				
Saigon.....	May 23-June 12...	274	142	

PLAGUE.

Bahrein, island.....	Apr. 1-30.....	.....	.....	Present.
China:				
Amoy.....	May 30-June 5....	.....	.....	Increasing in Amoy and vicinity.
Hongkong.....	June 6-19.....	15	13	
Dutch East Indies:				
Surabaya.....	May 23-29.....	1	1	
Egypt:				
Fayoum, province.....	June 26-30.....	8	2	
India:				
Bassein.....	May 30-June 5....	.....	7	
Calcutta.....	do.....	.....	2	
Karachi.....	June 6-12.....	94	80	
Mandalay.....	May 30-June 5....	.....	1	
Moulmein.....	do.....	.....	2	
Rangoon.....	May 30-June 12...	25	24	

¹ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, AND SMALLPOX—Continued.**Reports Received During Week Ended Aug. 6, 1915—Continued.****PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Indo-China:				
Saigon.....	May 23-June 12...	4	1	
Japan:				
Taiwan, island—				
Kagi.....	June 20-26.....	1		
Persia:				
Mohammerah.....	Apr. 10-June 1....	3		
Peru:				
Salaverry.....	May 9-30.....			In surrounding country.
Trujillo.....	do.....			7 cases in hospital.
Straits Settlements:				
Singapore.....	May 30-June 5....	1	1	
Turkey in Asia:				
Bagdad.....	May 23-June 5....	231	173	
Union of South Africa:				
Cape Province—				
Wodehouse district....	June 5.....		2	At Dordrecht.

SMALLPOX.

Australia:				
New South Wales—				
Cessnock.....	June 10-17.....	3		New Castle district.
Kurri Kurri.....	June 18-24.....	9		Do.
Canada:				
Quebec—				
Montreal.....	July 11-24.....	3		
China:				
Amoy.....	May 16-June 5....			Present in surrounding country.
Hongkong.....	June 6-12.....	1	1	
Nanking.....	June 20-26.....			Do.
Dutch East Indies:				
Java.....	May 30-June 5....	29	3	Mid Java.
Batavia.....	May 30-June 5....		5	
India:				
Calcutta.....	do.....		19	
Karachi.....	June 6-12.....	1		
Madras.....	June 13-19.....	1	1	
Rangoon.....	May 30-June 12...	21	8	
Indo-China:				
Saigon.....	May 23-29.....	1	1	
Mexico:				
Frontera.....	June 20-July 3....	18	3	
Mazatlan.....	July 7-13.....		1	
Progreso.....	July 11-17.....	2		
Salina Cruz.....	June 16-30.....	3		

Reports Received from June 26 to July 30, 1915.**CHOLERA.**

Austria-Hungary:				
Austria.....	May 2-22.....	33	8	
Vienna.....	May 9-15.....	9	3	Among soldiers and prisoners.
Bosnia-Herzegovina.....	Apr. 25-May 15....	116	41	96 cholera carriers in 3 localities.
Croatia-Slavonia.....	May 3-24.....	23	6	14 among soldiers.
Hungary.....	Apr. 26-May 31....	205	77	May 16-23: 5 additional cases notified.
Ceylon:				
Colombo.....	Apr. 25-May 22....	8	1	
China:				
Hongkong.....	May 2-8.....	1	1	
Dutch East Indies:				
Java—				
Batavia.....	Apr. 25-May 29....	51	45	
Germany:				
Sachsenhausen.....	July 16.....	1	1	

CHOLERA, PLAGUE, AND SMALLPOX—Continued.
Reports Received from June 26 to July 30, 1915—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Akyab.....	May 16-22.....	.....	1	Epidemic.
Bassein.....	Apr. 18-May 8.....	.....	19	
Bombay.....	June 6-12.....	2	2	
Calcutta.....	Apr. 25-May 29.....	.....	125	
Madras.....	May 2-June 5.....	4	5	
Rangoon.....	Apr. 24-May 1.....	1	2	
Indo-China:				Jan. 1-31, 1915: Cases, 284; deaths,
Saigon.....	May 2-22.....	264	82	178.
Provinces—				
Anam.....	Jan. 1-31.....	3	2	
Cochin China.....	do.....	243	158	
Tonkin.....	do.....	38	18	
Serbia.....	June 25-July 2.....	2	.....
Siam:				
Bangkok.....	Apr. 19-May 15.....	.....	4	
Straits Settlements:				
Singapore.....	May 9-15.....	1	.....

PLAGUE.

Ceylon:				
Colombo.....	May 9-20.....	3	3	
China:				Present. Present in Sio-Khe
Amoy.....	May 2-15.....	.....	.....	Valley, 60 miles inland.
Hongkong.....	May 9-June 5.....	31	27	
Dutch East Indies:				Jan. 1-Feb. 25, 1915: Cases, 2,094
Java.....				deaths, 1,864.
Do.....	Mar. 12-25.....	326	295	
Do.....	Mar. 26-May 20.....	582	521	
Surabaya.....	Apr. 18-May 22.....	8	7	
Ecuador:				
Guayaquil.....	May 1-31.....	1	.....
Egypt:				Jan. 1-May 20, 1915: Cases, 93;
Alexandria.....	May 21-27.....	.....	1	deaths, 48.
Assiout, province.....	May 14-June 3.....	7	2	
Favoum, province.....	May 14-June 13.....	37	7	
Galioubeh, province.....	May 14-27.....	1	.....
Minieh, province.....	May 14-June 12.....	5	3	
Port Said.....	May 28-June 10.....	4	2	
Hawaii:				
Pauhanu.....	June 29.....	1	.....
India:				
Bassein.....	Apr. 18-May 29.....	.....	48	
Bombay.....	May 2-June 12.....	111	100	
Calcutta.....	Apr. 25-May 29.....	.....	53	
Benazada.....	May 2-8.....	1	.....
Karachi.....	May 2-June 5.....	464	386	
Mandalay.....	Apr. 25-May 1.....	.....	1	
Moulmein.....	May 23-29.....	.....	2	
Myingyan.....	Apr. 5-17.....	.....	1	
Pegu.....	Apr. 18-May 1.....	.....	5	
Rangoon.....	Apr. 18-May 29.....	58	28	Apr. 1-30, 1915: Cases, 40; deaths,
Toungoo.....	Apr. 25-May 1.....	.....	38	39.
Indo-China:				
Saigon.....	May 9-15.....	3	2	Jan. 1-31, 1915: Cases, 73; deaths,
				58.
Provinces—				
Anam.....	Jan. 1-31.....	36	33	
Cambodia.....	do.....	18	18	
Cochin China.....	do.....	10	7	
Japan:				
Taiwan, Island—				
Kagi.....	May 30-June 19.....	5	5	
Tokyo.....	May 31-June 13.....	5	5	
Peru:				
Callao.....	May 3-9.....	1	.....
Lima (city).....	do.....	1	.....
Mollendo.....	do.....	1	.....
Salaverry.....	Apr. 26-May 2.....	2	.....
Trujillo.....	May 3-9.....	2	.....
Straits Settlements:				
Singapore.....	Apr. 25-May 15.....	3	3	
Turkey in Asia:				
Bagdad.....	May 2-15.....	418	293	
Union of South Africa:				
Cape Province—				
Tarka, district.....	June 2.....	1	1	
Zanzibar:				
Zanzibar.....	Mar. 1-31.....	.....	1	

CHOLERA, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 26 to July 30, 1915—Continued.

SMALLPOX.

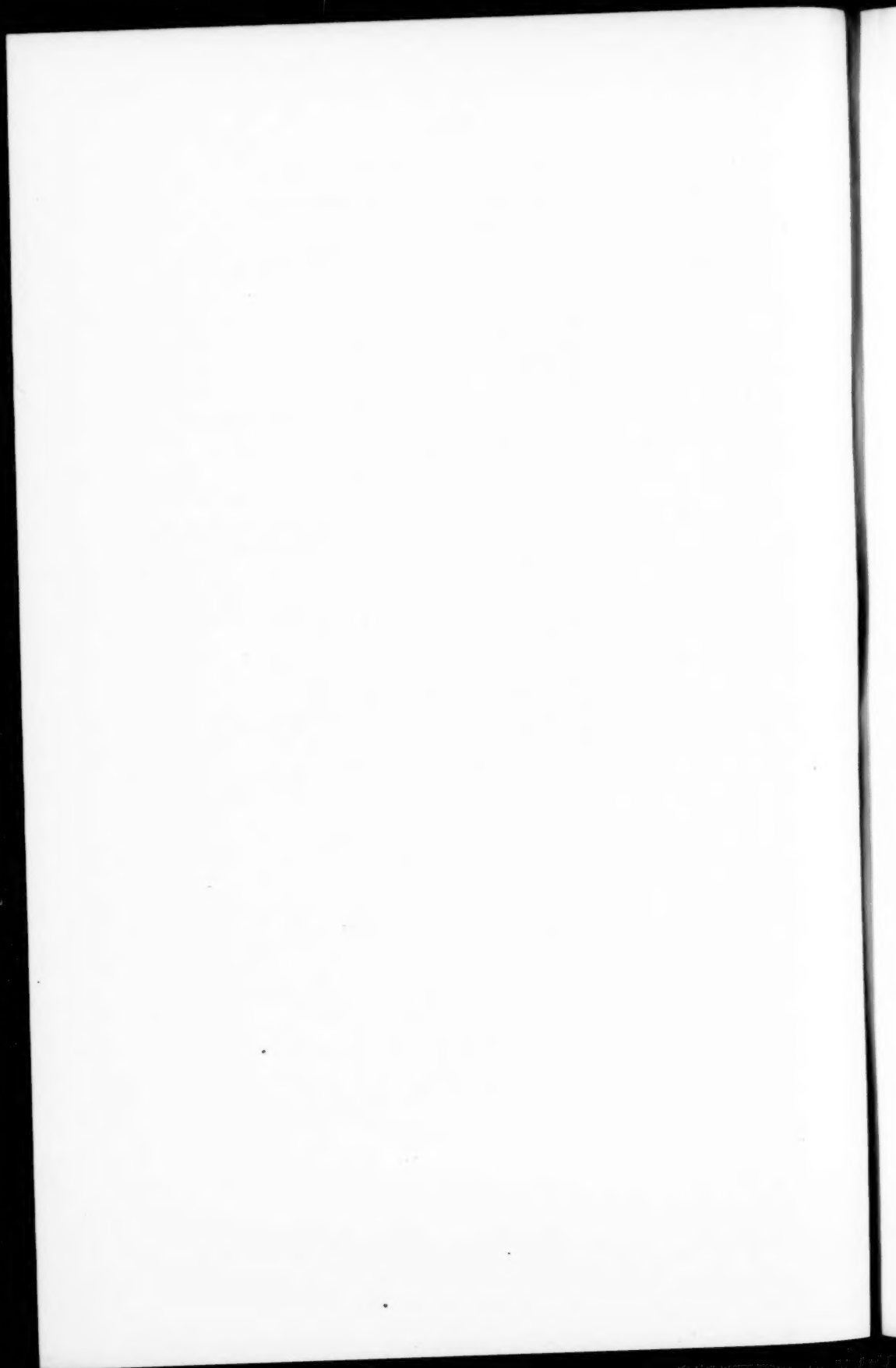
Place.	Date.	Cases.	Deaths.	Remarks.
Australia:				
New South Wales—				
New Castle District—				
Kurri.....	May 26.....	2	.....
Victoria—				
Melbourne.....	Apr. 20.....	1	.....	At Point Nepean quarantine station, from S. S. Lord Derby from Rangoon.
Western Australia—				
Fremantle.....	Apr. 27.....	1	.....	At Woodmans Point quarantine station, from S. S. City of Baroda from Calcutta via Colombo.
Austria-Hungary:				
Austria.....	May 2-15.....	275	.....
Dalmatia, Province.....	May 2-8.....	1	.....
Vienna.....	May 23-June 3.....	22	7	Aug., 1914-May 8, 1915: Cases, 1,487; deaths, 316. May 9-15, 1915: Cases, 28.
Hungary—				
Budapest.....	May 2-June 12.....	265	1	
Brazil:				
Rio de Janeiro.....	Apr. 18-June 15.....	88	24	
Canada:				
Ontario—				
Hamilton.....	June 1-30.....	2	4	
Sarnia.....	June 13-19.....	1	.....
Toronto.....	June 6-26.....	5	.....
Quebec—				
Montreal.....	June 13-July 3.....	6	.....
Sherbrooke.....	June 1-30.....	.....	1	
Ceylon:				
Colombo.....	May 2-29.....	21	7	
China:				
Chungking.....	May 23-June 19.....	.....	.....	Present.
Foochow.....	May 9-22.....	.....	.....	Do.
Hongkong.....	May 9-June 5.....	6	3	
Shanghai.....	May 9-June 6.....	4	2	Natives.
Tientsin.....	May 16-22.....	.....	1	
Dutch East Indies:				
Java.....	Apr. 18-May 29.....	79	26	Mid Java.
Do.....	Apr. 27-May 29.....	287	75	West Java.
Batavia.....	Apr. 25-May 22.....	.....	22	Natives.
Egypt:				
Alexandria.....	May 21-June 17.....	33	11	
Cairo.....	Apr. 30-June 3.....	10	3	
Germany.....				Total, May 16-22, 1915: 1 case.
Government districts—				
Allenstein.....	June 13-19.....	1	.....
Arnsberg.....	do.....	1	.....
Danzig.....	do.....	2	.....
Gumbinnen.....	May 23-29.....	2	.....
Marienwerder.....	do.....	2	.....
Oppeln.....	May 16-June 12.....	3	.....
Posen.....	May 30-June 5.....	3	.....
Potsdam.....	June 13-19.....	1	.....	Prisoners of war.
Hamburg.....	June 6-12.....	1	.....
Great Britain:				
Bristol.....	Mar. 21-May 22.....	29	7	1 from vessel from Bombay. Maximum incidence, Apr. 4-17: Cases, 22; deaths, 2.
London.....	May 30-June 12.....	3	.....
Greece:				
Saloniki.....	May 23-29.....	.....	1	
India:				
Basseln.....	May 2-8.....	.....	1	
Bombay.....	May 2-June 12.....	158	86	
Calcutta.....	Apr. 25-May 29.....	.....	218	
Karachi.....	May 2-29.....	22	4	
Madras.....	May 2-June 12.....	10	3	
Moulmein.....	May 23-29.....	.....	1	
Pegu.....	Apr. 18-24.....	.....	1	
Rangoon.....	Apr. 18-May 29.....	54	21	
Indo-China:				
Anam.....	Jan. 1-31.....	.....	.....	Present.
Cambodia.....	do.....	23	5	
Cochin China.....	do.....	12	.....
Tonkin.....	do.....	56	12	

CHOLERA, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 26 to July 30, 1915—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Japan:				
Taiwan, island.....	May 23-29.....	1		
Mexico:				
Aguaascalientes.....	June 7-July 4.....		8	
Frontera.....	May 23-June 19...	69	28	
Mazatlan.....	June 23-29.....		2	
Monterey.....	June 14-July 4....	6		
Progreso.....	June 6-26.....	2	1	
Salina Cruz.....	June 1-7.....	1		Soldier from San Geronimo.
Vera Cruz.....	June 7-July 10....	44	24	
Portugal:				
Lisbon.....	May 23-July 3....	20		
Russia:				
Moscow.....	May 2-15.....	19	5	
Petrograd.....	May 8-29.....	95	29	
Riga.....	May 9-June 12....	48		Mar. 1-31, 1915: Cases, 89; deaths, 22.
Warsaw.....				Sept. 27-Oct. 31, 1914: Cases, 51; deaths, 16. Nov. 1-28, 1914: Cases, 70; deaths, 23.
Serbia.....	Apr. 21-May 3....	356		
Spain:				
Seville.....	May 1-31.....		4	
Valencia.....	May 30-July 3....	45	9	
Straits Settlements:				
Penang.....	Apr. 25-May 15...	6	2	
Singapore.....	May 23-29.....	1		
Switzerland:				
Basel.....	May 16-June 19...	17		
Turkey in Asia:				
Bagdad.....	May 2-8.....			Present.
Beirut.....	May 16-June 19...	29	12	
Haifa.....	May 3-16.....	5		
Jaffa.....	May 9-29.....	2		
Mersina.....	May 30-June 5....	1		
Tripoli.....	May 2-8.....			Do.



SANITARY LEGISLATION.

COURT DECISIONS.

KANSAS SUPREME COURT.

Milk—Standards for—Regulations of State Board of Health.

STATE V. MEYER, 146 Pac. Rep., 1007. (Mar. 6, 1915.)

Kansas statute authorizing the State board of health to make rules and regulations governing the sale of foodstuffs, and the regulations made under this statute, held to be valid.

JOHNSTON, C. J.: On September 22, 1913, an amended information was filed in the district court of Wyandotte County, charging that:

Frederich H. Meyer, doing business under the firm name and style of the Meyer Sanitary Milk Company, at said county of Wyandotte, State of Kansas, within the jurisdiction of this court, on or about the 25th day of June, 1913, being then and there engaged in the delivery and sale of milk, did unlawfully and wilfully keep for sale, offer for sale, sell, or cause to be sold a quantity of milk, the exact amount of which is unknown, to one J. A. Bukaty, which milk was then and there adulterated in this, to wit: That said milk contained less than 3.25 per cent of milk fat and less than 8.5 per cent of solids not fat, in violation of the rules and regulations of the Kansas State Board of Health, and contrary to the statute in such case made and provided.

Meyer moved to quash the information on the ground that it failed to state a public offense, and, the motion being sustained, the State appeals.

The prosecution evidently undertook to charge a violation of the drugs and foods act, and the question presented here is: Does the information state an offense under the provisions of that act? In section 3 of chapter 266 of the Laws of 1907, as amended by section 1 of chapter 184 of the Laws of 1909, it is provided:

That the State board of health is authorized and directed to make and publish uniform rules and regulations, not in conflict with the laws of this State, for carrying out the provisions of this act, which rules and regulations shall be published in the official State paper, which rules and regulations, among others, shall provide for the collection and examination of specimens of foods and drugs manufactured, kept for sale, offered for sale, or sold in the State of Kansas; and said board of health is further authorized and empowered to make, define, adopt, and publish standards of quality, purity, and strength for foods and drugs. Any person who shall violate any of the rules and regulations so made and published in the official State paper shall be deemed guilty of a misdemeanor, and on conviction shall be punished by a fine not exceeding fifty dollars or imprisonment in the county jail not more than six months, or both, in the discretion of the court. (Gen. Stat. 1909, sec. 3077.)

One of the regulations adopted by the State board of health under the authority conferred by the legislature is that—

When any article of food, liquor, drug, or drink falls below the standards of quality, purity, or strength which have been adopted by the United States Department of Agriculture or the Kansas State Board of Health, it shall be regarded as misbranded or adulterated within the meaning of the Kansas food and drugs law. (Kansas State Board of Health regulation No. 30.)

The board also adopted regulation No. 35, subdivision "b" of which provides:

Milk is the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows properly fed and kept, excluding that obtained fifteen days before and five days after calving, and contains not less than eight and one half (8.5) per cent of solids not fat, and not less than three and one quarter (3.25) per cent of milk fat, and contains no preservative, added water, or other foreign substance.

This provision, it will be observed, is quite similar to the definition of milk prescribed by the legislature in the act providing for the appointment of a dairy commissioner and for the supervision of dairies and butter, cheese, and ice-cream factories. (Gen. Stat. 1909, sec. 8747.) No question is raised as to the power of the legislature to authorize the State board of health to adopt and publish standards as to the quality, purity, and strength of foods and to make rules and regulations for carrying out this and other provisions of the act. It is not contended that there is a lack of power in the legislature to prescribe penalties for the violation of such regulations as the board is authorized by the legislature to make. There is no contention that the board has authority to create an offense or to exercise legislative power by making the violation of one of its regulations a public offense. The question here is: Does the information charge that the defendant has done that which the legislature has declared to be an offense and for which it has prescribed a penalty? It is contended that the information is defective in that it fails to specify the manner in which the milk has been adulterated by the defendant, and it is insisted that to state an offense it must charge the doing of one or more of the specific acts prescribed in the section defining adulteration. (Gen. Stat. 1909, sec. 3081.) The act, as will be observed, contains many provisions and makes the violation of each of a number of them a misdemeanor, for which a penalty is prescribed. Among them it makes the manufacture of foods or drugs that are adulterated or misbranded or which contain any deleterious substance an offense. It also provides that anyone who sells, keeps, or offers for sale any adulterated or misbranded food, drug, or liquor shall be guilty of a misdemeanor.

In section 3081 of the General Statutes of 1909, to which reference has been made, it is provided, in effect, that foods shall be deemed to be adulterated if any substance has been added to or abstracted from them, or shall be mixed with or substituted for them, or where there is any treatment of foods which would conceal damage or inferiority, or if it consist of a filthy, decomposed, tainted, or putrid animal or vegetable substance, or any portion of an animal unfit for food, or if it is the product of a diseased animal or one which died otherwise than by slaughter. The next section defines the term "misbranding," as applied to articles of foods and drugs.

In a prosecution for the violation of the provisions which prohibit and punish adulteration, an allegation of the means of adulteration employed by the defendant would be necessary, but this prosecution, as we have seen, is not brought under any of those provisions, but is brought on the one which provides that the State board of health shall make rules and regulations fixing standards for foods and drugs, and which makes the violation of such rules and regulations a misdemeanor. It is true that the word "adulterated" is used in one part of the information, but it is a superfluous term, and was only used to characterize the milk which it is alleged was not up to the standard fixed by the State board of health. The specific charge made against the defendant is that he kept, offered for sale, and sold milk in violation of the rule and regulation made by the State board of health fixing the standard for milk. It has been suggested that the section in question falls short of making the keeping and offering for sale and the selling of foods which are below the standard an offense; that the fixing and publishing of standards is not a rule or regulation; and that only a violation of the rules and regulations is declared to be an offense.

Although the section is somewhat awkwardly phrased, there can be little doubt of the legislative purpose in enacting it. It first confers general authority on the board to make rules and regulations, and these are required to be published in the official State paper. It is then enacted that, among others, the rules and regulations shall provide for two things: First, the collection and examination of specimens of foods and drugs; and, second, the board is authorized and empowered to make, define, adopt, and publish standards of quality, purity, and strength of foods and drugs. There is a semicolon at the end of the clause relating to the collection and examination of specimens, but the succeeding clause is a continuation of the subject, and is but the enumeration

of another regulation that the board is authorized to make. It is the same as if it had been said that, in making rules and regulations, the board, among other things, shall provide for the collection and examination of specimens of foods and drugs, and shall make, define, adopt, and publish standards of quality, purity, and strength of foods and drugs. The action of the board in fixing and publishing a standard is the making of a rule and regulation for the violation of which a penalty is prescribed. The information does not, of course, state that the milk has been adulterated by adding something to it or substituting something for it, but briefly alleges that the milk which the defendant kept and sold contained less than a certain per cent of milk fat and less than a certain per cent of solids not fat, and this, as we have seen, is a violation of the adopted and published rule made by the State board of health.

The order of the district court sustaining the motion to quash will therefore be reversed, and the cause remanded for further proceedings.

BURCH, MARSHALL, and DAWSON, JJ., concurring.

MASON, J. (concurring specially). My own present views of the matter are these: Regulation No. 30 of the board of health is invalid as an attempt to exercise purely legislative power—in effect to amend a statute.

The legislature may forbid the sale of an article of food which falls below a standard to be fixed by the board of health, but it has not done so.

A regulation or order defining milk as an article containing a certain percentage of milk fat is in a sense violated by selling, or producing, or using an article containing a less percentage; but to declare such a definition does not in terms forbid the sale of an article not conforming to it, and does not imply such a prohibition with the clearness to be expected in a law creating a public offense, which must be subjected to some strictness of interpretation. Therefore the statutes and regulations quoted in the opinion of the court do not support the information. Moreover a statute enacted in 1909 seems to deal directly with the matter, reading thus:

Whosoever shall sell * * * milk * * * that shall not comply with the standards hereinafter provided, shall be guilty of a misdemeanor. (Gen. Stat. 1909, sec. 8743.)

A section of the same act fixes a standard requiring milk to contain $3\frac{1}{4}$ per cent of butter fat. (Gen. Stat. 1909, sec. 8747.) The information states facts sufficient to constitute an offense under this statute if, as I understand to be the case, the terms "milk fat" and "butter fat" are synonymous.

WEST, J. I dissent for two reasons: First. The information states no offense whatever, because it charges that the defendant did one of three things, and, there being no charge as to which one of the three he did, he should not be called upon to defend. In other words, pleading in the disjunctive is no pleading at all. This is the universal rule, and has also been recognized and followed by this court. (*State v. Seeger*, 65 Kans., 711; 70 Pac., 599.) Second. The statute invoked does not make it a crime openly to sell, use, or have on hand milk below the standard fixed by the State board of health. It will not do to guess people into the commission of crimes by imagining what the legislature would have done had its attention been called to its failure to express a meaning.

The prosecution can not be sustained under section 8743 of the General Statutes of 1909, because, in order to make a sale unlawful, the product sold must fail to comply with the standards "hereinafter provided," and those thus provided are not the ones prescribed by the State board of health, and the defendant was charged only of violating those prescribed by this board.

It is a matter of no difficulty whatever to frame a statute and information both clear beyond the question and needing no construction.

PORTER, J., concurs in this dissent.

MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

NEW YORK, N. Y.

Communicable Diseases—Isolation of Cases in Hospitals. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the Department of Health of the City of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 96 of the Sanitary Code, which provides as follows:

SEC. 96. *Isolation of persons affected with infectious diseases in institutions.*—It shall be the duty of the manager or managers, superintendent, or person in charge of every sanatorium, sanitarium, day nursery, convalescent home, home for children, reformatory, training school, boarding school, hospital, dispensary, or other institution for the care or treatment of persons, in the city of New York, to provide and maintain a suitable room or rooms for the isolation of persons affected with such infectious diseases as the regulations of the department of health may from time to time designate as being subject to the provisions of this section, and such persons shall immediately be isolated in such room or rooms.

DEFINITIONS.

(a) *Large hospitals.*—The term large hospital as used in these regulations shall mean hospitals with 100 or more beds for the accommodation of patients.

(b) *Small hospitals.*—The term small hospital as used in these regulations shall mean hospital with accommodations for patients up to the number of 100.

(c) *Large institutions for children.*—This term as herein used shall apply to institutions having 100 or more inmates.

(d) *Small institutions for children.*—This term as herein used shall apply to institutions having accommodations for inmates up to the number of 100.

REGULATION 1. *Isolation rooms; requirements.*—Every isolation room or every group of such isolation rooms so arranged as to constitute a ward unit shall be provided with suitable entrances, exits, toilet accommodations, and kitchen, so arranged as to render possible the complete isolation of every such room or ward unit from the rest of the hospital or other institution.

REG. 2. *Capacity of room regulated.*—The capacity of any isolation room shall be sufficient to allow for each bed not less than 100 square feet of floor space.

REG. 3. *Number of rooms required in large hospitals (containing 100 or more beds).*—The minimum accommodations to be provided in large hospitals for the isolation of infectious-disease cases shall be two rooms. In hospitals accommodating more than 300 patients one bed for every 100 patients shall be provided in such isolation rooms.

REG. 4. *Number of rooms required in small hospitals (containing less than 100 beds).*—The minimum accommodations to be provided for the isolation of infectious-disease cases in small hospitals shall be one room of a size sufficient to accommodate two beds.

REG. 5. *Number of rooms required in large institutions for children (having 100 or more inmates).*—The minimum accommodations to be provided for the isolation of

infectious-disease cases in large institutions for children shall be two rooms. In institutions accommodating more than 150 inmates, one bed for every 50 inmates shall be provided in such isolation rooms.

REG. 6. *Number of rooms required in small institutions for children (having less than 100 inmates).*—The minimum accommodations to be provided in small institutions for children for the isolation of infectious-disease cases shall be one room of a size sufficient to accommodate two beds.

REG. 7. *Number of rooms required in institutions for adults.*—The minimum accommodations to be provided in institutions for adults for the isolation of infectious disease cases shall be one room of a size sufficient to accommodate one bed for every 200 inmates or fraction thereof.

REG. 8. *Number of rooms required in prisons and reformatories.*—The minimum accommodations to be provided in prisons and reformatories for the isolation of infectious disease cases shall be two rooms of a size sufficient to accommodate two beds in each room.

REG. 9. *Number of rooms required in other institutions.*—In every dispensary, clinic, nursery, day camp, sanatorium, sanitarium, boarding school, municipal lodging house, and police-court house, there shall be provided at least one room suitable and adequate and satisfactory to the department of health for the temporary isolation of cases of infectious diseases. The provisions of regulations 1 and 2 of these regulations shall not apply to any such institution, place, or premises.

Hospitals—Establishment and Maintenance. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 220 of the Sanitary Code, which provides as follows:

SEC. 220. *Hospitals; permit required; exception.*—No person, persons, or corporation, other than those specifically authorized by law, shall conduct or maintain any public or private hospital or institution wherein human beings may be treated or cared for by a physician or midwife, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Information to be furnished by applicant.*—The application for a permit to conduct a private hospital or sanitarium must be made in writing on an official application blank and must contain the following information:

Location of building.....
 Character of building.....
 Name of owner of building.....address.....
 Name of applicant.....address.....
 If a corporation, state purpose of corporation.....
 Give State in which incorporated..... Date.....
 If females, received, cared for, or treated for in pregnancy or during or after delivery.....
 Name of house physician or surgeon.....
 Present address.....
 Graduate of what college..... Date.....
 Licensed to practice medicine in.....
 New York State.....
 Date of license.....
 Name of superintendent.....
 Number of single rooms..... Location.....
 Number of wards..... Location..... Beds.....
 No. 1.....
 No. 2.....
 No. 3.....
 Character of cases received.....
 By whom treated.....
 Date of approval by the department of buildings.....
 Date of approval by the bureau of fire prevention.....

REG. 2. *Contents of permit.*—The permit shall specify the name of the person or persons conducting or maintaining the hospital, the location thereof, and the number of patients or inmates allowed to be received, cared for, or treated. If a maternity ward is permitted, the permit shall contain a statement of such fact.

REG. 3. *Construction of building.*—All buildings to be occupied by private hospitals or sanatoria shall be constructed of brick or stone, said construction to be approved by the department of buildings and the bureau of fire prevention, the sanitary condition thereof, and the location of the building to be approved by the department of health.

REG. 4. *Water-closets.*—There shall be at least one water-closet to each eight rooms, and at least one on each floor. The water-closet compartment shall be properly and adequately ventilated to the external air.

REG. 5. *Operating room—construction and equipment.*—An operating room must be provided and maintained as such at all times. It must be conveniently located, and be provided with adequate sterilizing apparatus, washing facilities, and such other operating room furniture and fixtures as may be required. The floors, walls, and ceilings shall be of such material as will permit of being readily washed. The room must be an outside one, with good ventilation and light, and should be properly and sufficiently heated and provided with suitable artificial light, as regards both quantity and quality.

REG. 6. *Patients' rooms—air space.*—All rooms to be occupied by patients shall be outside rooms, with suitable windows for light and ventilation. A minimum of 800 cubic feet of air space must be allowed each patient.

REG. 7. *Beds.*—All beds used for patients shall be metal (preferably white enamel). No two beds are to be in contact.

REG. 8. *Care of foodstuffs.*—Adequate methods for the preservation of foodstuffs must be provided and maintained.

REG. 9. *Institution not to be a nuisance.*—The institution must be maintained and conducted in such manner as not to become a nuisance in, or an annoyance to the inhabitants of, the neighborhood in which it is located.

REG. 10. *Responsible officer to be on duty at all times.*—The superintendent or other executive officer, or his assistant, shall be on duty at all times, and shall be responsible for the management of the institution.

REG. 11. *Information to be kept on record.*—The record of each patient or inmate shall include the following information, said information to be kept in a registry on file in the institution, and available for inspection by the department of health at all times:

Date of admission.....
 Full name..... Age..... Address..... Nativity.....
 Name of husband or wife..... Address.....
 Name of father.....
 Name of mother.....
 Diagnosis on admission.....
 Name of physician in charge of case..... Address.....
 Present diagnosis.....
 If operation, give nature.....
 Remarks.....
 General history.....
 Termination of case.....
 If death—state cause and disposition of body.....
 If obstetrical case, state:
 Period of gestation at time of confinement.....
 Sex of child..... When born..... Date..... Time.....
 Father's name (if known)..... Address.....
 Birth natural or complicated (if so, give statement).....
 Malformation of child.....
 If stillbirth—state cause.....
 Death of child..... Date..... Time..... Cause.....

In miscarriage, state:

Period of gestation.....
 Cause of abortion.....
 If induced—by whom..... Address.....
 Name of prospective father..... Address.....
 Health department notified—date..... Time.....
 Health department inspector called..... Date.....
 Time.....
 Treatment..... Physician or operator.....

REG. 12. *Action to be taken in cases of miscarriage.*—In all cases of miscarriage the department of health shall be notified by telephone immediately.

REG. 13. *Births to be recorded.*—The births of all children born on the premises shall be recorded in a registry provided for such purpose, wherein shall be entered:

The name of the child.
 The names, ages, and residences of the parents.
 The maiden name of the mother.
 The date of birth.
 The number of previous children.
 The number of children living.
 The name of the attending physician.

REG. 14. *Permission to be obtained from the department of health before cremation.*—In all cases of death, when the body is to be cremated, the department of health shall be immediately notified by telephone to that effect, and the body must be held subject to inspection by a representative of the department of health.

REG. 15. *Permit.*—Permits will be issued for a period of one year.

Mineral, Carbonated, and Table Water—Manufacture and Bottling. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 165 of the Sanitary Code, which provides as follows:

SEC. 165. *Artificial or natural mineral, spring, or other waters; manufacture regulated.*—It shall be the duty of every wholesale dealer, manufacturer, importer, or other person who manufactures or imports, or sells at wholesale in the city of New York, any artificial or natural mineral, spring, or other water, for drinking purposes to file, under oath, with the department of health, the name of such water and the exact location from which it is obtained, the chemical analysis and the bacteriological examination thereof, and, when manufactured, the name of every substance or element entering into its composition.

No person shall manufacture or bottle any mineral, carbonated, or table water in the city of New York without a permit issued therefor by the board of health, or otherwise than in accordance with the terms of said permit and with the regulations of said board. No permit will be required, however, where the city water supply is conducted through closed pipes and connected with a carbonated apparatus, from which it is dispensed direct to the consumer, without coming in contact with the air, and not handled in any way.

REG. 1. *Rooms where manufactured.*—Mineral, carbonated, or table water shall not be manufactured or bottled in any stable, room used for sleeping purposes, or in any room or place which is dark, damp, poorly ventilated, dirty, or insanitary, or in direct communication with such stable or room.

REG. 2. *Construction of walls and ceilings.*—Walls and ceilings shall be of a smooth, hard material, and must be kept clean and sanitary and in good repair.

REG. 3. *Construction of floors.*—Floors shall be smooth and water-tight and must be kept clean and sanitary and in good repair. Floors when required shall be properly graded and drained into one or more drains, properly trapped, and sewer or cesspool connected.

REG. 4. *Lighting*.—All rooms shall be properly and adequately lighted so that all parts thereof may be readily inspected.

REG. 5. *Tanks used*.—All vats, tanks, and other receptacles shall be so constructed and arranged as to permit of thorough cleansing and shall be kept clean, sanitary, and in good repair.

REG. 6. *Covers for tanks*.—All vats, tanks, and other receptacles shall be provided with suitable covers and shall be kept covered.

REG. 7. *Filters*.—All filters shall be cleaned and kept clean at all times, and shall be kept covered.

REG. 8. *Cleansing of bottles*.—All bottles, vessels, and other containers used in manufacturing, bottling, handling, and selling mineral, carbonated, or table waters, shall be properly cleansed and sterilized after being used, and no such bottles, vessels or other containers shall under any circumstances be used a second time unless it, shall have been, after previous use thereof, so cleansed and sterilized.

REG. 9. *Sterilizing facilities to be provided*.—Suitable and adequate apparatus shall be provided for the sterilization of all bottles, utensils, containers, and vessels.

Well Water—Use for Bathing, Flushing, Cooling, or Domestic Purposes. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 168 of the Sanitary Code, which provides as follows:

SEC. 168. *Water from wells; the use thereof regulated and restricted*.—Water from wells in the borough of Manhattan shall not be used in the city of New York for drink; nor shall water from wells in the borough of Manhattan be used for any other purpose in any tenement, lodging house, hotel, manufactory, or building in which persons are living or employed, or in which there are offices, or a restaurant or saloon, in the city of New York, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and the regulations of the said board. Water from wells in the other boroughs of said city, other than the public water supply, shall not be used in any tenement or lodging house, hotel, manufactory, or building in which persons are living or employed, or in which there are offices, or a restaurant or saloon, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and the regulations of the said board.

REGULATION 1. *Analysis of water*.—No permit shall be issued, except after an analysis and examination of a sample of the well water and a favorable report shall have been rendered thereon by the department of health. Every such permit shall state specifically the purpose or purposes for which the water may be used.

REG. 2. *Protection from surface water*.—Suitable means shall be employed and proper precautions taken to prevent surface water from entering wells.

REG. 3. *Wells near cesspool or privy vault*.—No well shall be maintained within 15 feet of any cesspool or privy vault, and no leaching cesspool or privy vault or other source of contamination shall be maintained within 300 feet of a well, or where there is danger of such well water becoming contaminated from such leaching cesspool or privy vault or other source.

REG. 4. *Danger sign to be posted*.—A sign with the words "Danger—this well water not to be used for drinking or domestic purposes" clearly, legibly, and prominently displayed thereon shall be securely fastened or attached to every pump, tap, or outlet connected with any well, the water from which is used for other than drinking or domestic purposes.

REG. 5. *Removal of danger signs prohibited*.—No person, excepting a duly authorized representative of the department of health, shall remove or deface or mutilate any sign fastened or attached to any pump, tap, or outlet connected with any well, as provided for in regulation 4 of these regulations.

REG. 6. *Connections*.—Well water shall not be connected with any other water supply.

House Boats—Use and Occupancy. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 360 of the Sanitary Code, which provides as follows:

SEC. 360. House boats: the use thereof regulated.—No house boat, while used or occupied as such, shall be moored, anchored, or located on the waters of any inlet or bay within the territorial limits of the city of New York, except the upper or lower bay of New York Harbor, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board; and no person shall use or occupy for living purposes any such boat so moored, anchored, or located unless a permit for such boat has been issued as hereinbefore provided, or then otherwise than in accordance with the terms of said permit and the regulations of said board.

Definition—House boat defined.—For the purpose of these regulations, a house boat shall be taken to mean and include a covered boat fitted up as a dwelling, or a boat with a deck cabin suitable for a dwelling and used for dwelling purposes.

REGULATION 1. Privies.—Every house boat shall be provided with a suitable and adequate privy house properly ventilated to the external air and all openings in said privy house shall be properly screened and protected against flies. The door of the privy house shall be self-closing. The privy house shall be so constructed as to permit the removal of cans and the proper cleansing of the floor and space underneath the privy seats. Such privy house shall be provided with a sufficient number of seats and cans and pails. Such cans or pails shall be made of metal, liquid tight, and so set and placed as to fit close to the privy seat. The privy seats shall be provided with tight-fitting covers and shall be kept closed when not in use.

REG. 2. Care of privy cans and pails.—An adequate supply of sand or lime shall be provided in the privy house. It shall be the duty of all persons using such privy house to sprinkle a small quantity of such sand or lime in the cans or pails provided therein after each use thereof.

REG. 3. Removal of contents of privy cans or pails.—When the privy cans or pails are three-quarters full they shall be removed, emptied, cleaned, and disinfected by a licensed scavenger.

REG. 4. Receptacles for garbage, refuse, and waste material to be provided.—Suitable metal cans or pails with tight-fitting covers for holding (without leakage) all garbage, refuse, and waste material shall be provided.

REG. 5. Removal of garbage, refuse, and waste material.—All garbage, refuse, and waste material shall be removed from the house boat daily.

REG. 6. Garbage, refuse, or other waste material not to be thrown or discharged into waters; exception.—No garbage, refuse, or other waste material, except wash water, shall be thrown or discharged into the waters in which the house boat is moored, anchored, or located, but shall be so disposed of as to create no nuisance.

Privies and Cesspools—Location and Construction. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 287 of the Sanitary Code, which provides as follows:

SEC. 287. Privy vaults and cesspools; construction.—No privy vault or cesspool shall be allowed to remain on any premises, or built, in the city of New York unless when unavoidable. The sides and bottom of every privy vault, cesspool, or "school sink" in the city of New York must be impermeable and secure against any saturation of the walls or the ground above the same, unless otherwise allowed by a permit in writing issued therefor by the board of health, and must then be used in accordance with the

terms of said permit and the regulations of said board. No water-closet or privy vault shall be constructed without adequate provision for the effectual and proper ventilation and cleansing thereof.

REGULATION 1. *Statement in application.*—No permit for the construction of a leaching privy vault or cesspool shall be granted until the applicant therefor shall have submitted to the department of health a statement setting forth the dimensions of said privy vault or cesspool and the character of the soil in which the privy vault or cesspool is to be constructed.

REG. 2. *Location forbidden.*—No leaching privy or cesspool shall be permitted on any premises abutting upon a street in which there is a public sewer and water mains to which connection can be had.

REG. 3. *Contents not to contaminate wells.*—Such leaching privy vault or cesspool shall not be permitted where there are wells in the vicinity, the water from which is used for drinking or domestic purposes and which water is liable to become contaminated by seepage from such privy vault or cesspool.

REG. 4. *Construction.*—Every leaching privy or cesspool shall be adequate for its purpose and be constructed of brick or stone and cemented at least 3 feet down from the top, except in districts affected by tidewater, where such privy vault or cesspool may be constructed of wood at least 1 inch thick, properly and securely braced. Every such cesspool shall be covered with a tight-fitting cover to prevent the escape of offensive odors.

Sinks, Privies, Vaults, and Cesspools—Removal of Contents—Disinfection. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30 1915, effective April 1, 1915, relating to section 236 of the Sanitary Code, which provides as follows:

SEC. 236. *Disinfection and removal of contents of sinks, privies, vaults, and all other noxious substances.*—All putrid or offensive matter, all night soil, the contents of all sinks, privies, vaults, and cesspools, and all noxious substances, shall, before their removal or exposure, be disinfected and rendered inoffensive by the owner, lessee, or occupant of the premises where the same may be, or by the person or contractor who removes or is about to remove the same; and no part of the contents of any vault, privy, sink, or cesspool shall be removed without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Contents to be disinfected.*—The contents of every sink, privy, vault, or cesspool shall, before removal, be properly disinfected or treated so as to prevent the escape of offensive odors therefrom.

REG. 2. *Containers to be water-tight.*—All carts, receptacles, containers, and implements used in the removal of the contents of any vault, privy, sink, or cesspool shall be strong, tight, and so constructed that no part of the contents shall leak or fall therefrom, and kept covered and protected so that flies shall not have access thereto or to the contents thereof.

REG. 3. *Manner of removal of contents.*—The contents of any sink, privy, vault, or cesspool shall be loaded into such containers as quickly as possible and in a cleanly manner, and any portion thereof falling outside of said containers shall be immediately placed within the containers, and the surface upon which same has fallen shall be thoroughly cleaned and disinfected.

REG. 4. *Cleaning of containers after use.*—All carts, receptacles, containers, and implements used in removing the contents of any vault, privy, sink, or cesspool shall be kept in an inoffensive and sanitary condition. Such carts, receptacles, containers, and implements shall be thoroughly washed inside and outside after each use and

when not in use shall be stored and kept in some place where they shall not become offensive or create a nuisance.

REG. 5. *Final disposal of contents.*—The contents of every vault, privy, sink, or cesspool shall be disposed of in accordance with the terms and conditions of the permit issued by the department of health and in such manner as not to create a nuisance.

Garbage and Other Offensive Matter—Removal by Vessels—Regulation of. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 245 of the Sanitary Code, which provides as follows:

SEC. 245. *Ships, boats, and other vessels; not allowed at dock or pier unless permitted.*—No ship, boat, or other vessel shall be taken or allowed by any person to come into, or lay at or within, any dock, pier, bulkhead, or slip, for the purpose of the shipment or removal of any offal, garbage, rubbish, blood, or offensive animal or vegetable matter, dirt, or dead animals, or for the use of any contractor for the removal of any of the foregoing substances, without a permit therefor issued by the board of health, or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Construction of container.*—Every ship, boat, or vessel and the implements and containers used thereon shall be so constructed as not to permit of the escape of offensive liquids or material therefrom.

REG. 2. *Treatment of contents.*—The contents of every ship, boat, or vessel shall be so treated and cared for as to prevent the access of flies.

REG. 3. *Prevention of odors.*—No offensive odors shall be allowed to escape from any ship, boat, or vessel or the implements or containers used thereon to the detriment or annoyance of any person or persons not being thereon or thereupon engaged.

REG. 4. *Dropping of contents on dock or into water prohibited.*—Adequate means shall be provided to prevent the dropping of offensive materials or the liquids therefrom upon the dock or into the water of the harbor during the unloading of wagons or loading of vessels.

Manure, Garbage, and Other Offensive Material. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the City of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 242 of the Sanitary Code, which provides as follows:

SEC. 242. *Accumulations of manure, offal, garbage, and other offensive and nauseous substances; retention and disposal regulated.*—No pile, deposit, or accumulation of manure, offal, dirt, or garbage, or any offensive or nauseous substance, shall be made within the built-up portions of the city of New York, or on or upon the piers, docks, or bulkheads adjacent thereto, or on or upon any vessel, boat, or scow, lying at such pier, wharf, or bulkhead; nor shall such pile, deposit, or accumulation be made anywhere in said city within 300 feet of any church or place of worship, or inhabited dwelling, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board; and no person shall contribute to the making of any such pile, deposit, or accumulation without such a permit or otherwise than in accordance with the terms of such permit and the regulations of said board; nor shall any car loaded with or having in or on it any such substance or substances be allowed to remain or stand on any railroad track, street, or highway, within 300 feet of any inhabited dwelling, or elsewhere in said city, nor shall any vessel, boat, scow, or float loaded with any such substance or substances be allowed to remain at any pier, dock, or bulkhead in said city, without a permit therefor issued by the board of health, or otherwise than in accordance with the terms of said

permit and with the regulations of said board; and no manure, garbage, or other material that is liable to emit an offensive exhalation shall, in or adjacent to the built-up portions of the city of New York, be turned or stirred, except in its removal, in such a way as to increase such exhalations by reason thereof; nor shall any straw, hay, or other substance, which has been used as bedding for animals, be placed or dried upon any street or sidewalk, or roof of any building; nor shall any such straw, hay, or other substance, or the contents of any mattress or bed, be deposited or burnt without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

A. REGULATIONS FOR RETENTION OF ACCUMULATIONS OF OFFENSIVE MATERIALS.

REGULATION 1. *Floor.*—The floor space upon which manure, offal, garbage, or other offensive or nauseous substance are stored shall be of cement, water-tight, and graded to properly trapped sewer or cesspool connected drains.

REG. 2. *Fly and mosquito breeding.*—All accumulations of manure, offal, garbage, or other offensive or nauseous substance shall be so treated as to prevent the breeding of flies or mosquitoes therein or thereon.

REG. 3. *Liquids not to enter street.*—No manure, offal, garbage, or other offensive or nauseous substance, or liquid matter therefrom, shall be allowed to enter, fall into or upon the street, or fall upon or flow over the sidewalk from such accumulations.

REG. 4. *Odors not to escape therefrom.*—All manure, offal, garbage, and other offensive or nauseous substance shall be treated and cared for so as to prevent the escape of offensive odors therefrom to the detriment or annoyance of any person or persons not engaged in the handling, care, treatment, accumulation, or storing thereof.

B. REGULATIONS FOR CARS OR VESSELS, STANDING OR DOCKING, FOR THE LOADING OR UNLOADING OF OFFENSIVE MATERIALS.

REGULATION 1. *Time allowed in loading or passing.*—No vehicle used for the transportation of manure, offal, garbage, and other offensive and nauseous substances shall be allowed to occupy an unreasonable length of time in loading or unloading or in passing through any inhabited place or grounds.

REG. 2. *Construction of cars or vessels.*—The scows, vessels, or railroad cars used for the transportation of manure, offal, garbage, or offensive or nauseous substances shall be strong and tight, and the materials shall be so loaded and unloaded that no part thereof shall fall, leak, or spill therefrom.

REG. 3. *Construction of docks.*—The dock, pier, or bulkhead from which manure, offal, garbage, and other offensive or nauseous substances is loaded or unloaded upon or from scows or vessels shall be provided with suitable dumping boards and curtains, so that no such substances shall fall into the waters.

REG. 4. *Cleanliness of premises.*—The dock, platform, and ground surface of and around all such docks or places used for loading or unloading of manure, offal, garbage, and other offensive or nauseous substance shall be kept clean and free at all times from any accumulation of such offensive material thereon.

Offal, Manure, Garbage, Other Offensive Material, Ashes, and Refuse—Collection and Transportation. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to sections 239, 240, and 241 of the Sanitary Code, which provides as follows:

SEC. 239. *Transportation of offal and butchers' refuse regulated.*—No offal or butchers' refuse or garbage shall be conveyed through any street or avenue or over any ferry in the city of New York without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

No offal or butchers' refuse shall be brought into the city of New York.

SEC. 240. *Transportation of manure, swill, ashes, garbage, and offal regulated.*—No person shall engage in the business of transporting manure, swill, ashes, garbage, offal, or any offensive or noxious substance, or drive any cart for such purpose, in the city of New York, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

SEC. 241. *Collection and transportation of bones, refuse, and offensive materials regulated.*—No person shall gather, collect, accumulate, store, expose, carry, or transport in any manner through any street or public place, or into any building or cellar, in the city of New York, any bones, refuse, or offensive material without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

Definitions.—The terms, as herein defined, shall be taken to mean and include as follows:

Ashes.—Cinders, coal, and every other substance which is left unconsumed by fire in stoves, furnaces, ranges, fire pots, fireplaces, and other such places.

Bones and butchers' refuse.—Trimnings from the carcasses of meat which collect in butcher shops, markets, and other places.

Garbage.—Refuse food material, both cooked and uncooked, which has been produced at dwellings in course of domestic cooking.

Grease.—Fat which has been rendered or melted in the process of cooking at restaurants and other public places where foodstuffs are prepared.

Manure.—The excreta of horses, cattle, and other herbivorous animals kept in captivity, mixed or unmixed with straw or other bedding.

Offal.—The parts of butchered animals that are rejected as worthless or unfit for food.

Refuse.—Waste material other than rubbish, ashes, or garbage that attends use or decay and accumulation from the occupancy of buildings or premises.

Rotten eggs.—All eggs which are not healthy, fresh, sound, wholesome, and safe for human food.

Sweepings.—Dirt and manure taken from electric conduits in the street, and the sweepings collected on surface of streets, alleys, and other public places.

Swill.—Garbage collected from the kitchens of clubs, hotels, restaurants, and other places where foodstuffs are prepared for guests, patrons, or the use of the public in general.

GENERAL REGULATIONS.

REGULATION 1. *Permit to be displayed.*—The permit issued by the department of health shall be securely fastened in a conspicuous place on the right side near the front of the vehicle used in the transportation of offensive materials.

REG. 2. *Vehicles not to stand in streets.*—Vehicles used in the transportation of offensive materials while loaded either wholly or in part shall not remain on the public street or place an unreasonable length of time, and shall not except when unavoidable stop in front of any premises other than those from which material is being collected.

REG. 3. *Maintenance of vehicles and containers.*—All vehicles and containers therein shall be thoroughly cleaned upon the completion of each day's use, and so stored as not to cause a nuisance.

REG. 4. *Permit not transferable.*—A permit issued by the department of health is not transferable from person to person or from vehicle to vehicle.

ADDITIONAL REGULATIONS GOVERNING THE TRANSPORTATION OF OFFAL.

REG. 5. *Escape of odors forbidden.*—The vehicles and other apparatus used in the collection of offal shall be so constructed as to prevent the escape of offensive odors therefrom.

REG. 6. *Containers to be water-tight.*—The offal shall be transported in barrels, boxes, or other receptacles which are water-tight, strongly constructed of metal or hardwood, and each fitted with a cover sufficiently tight to prevent the escape of offensive odors.

REG. 7. *Final disposal.*—Offal transported under this permit may be delivered only to the following points:

- (a) To a dock or boat set aside for the receipt of offal or garbage.
- (b) To a contractor employed by the city of New York for the disposal of offal, garbage, or other animal refuse.
- (c) To plants within the city of New York holding permits from the department of health to treat and dispose of material of this character.

REG. 8. *Loading and unloading to be within building.*—All vehicles used in transporting offal shall be loaded and unloaded within the building from which the material is collected or to which it is transported.

ADDITIONAL REGULATIONS GOVERNING THE TRANSPORTATION OF BUTCHERS' REFUSE AND BONES.

REG. 9. *Not to be brought into the city.*—A permit to transport butchers' refuse and bones does not include or allow the collection of butchers' refuse and bones at points beyond the limits of the city of New York nor does it permit or allow any butchers' refuse and bones to be brought into the city.

REG. 10. *Escape of odors forbidden.*—The vehicles and other apparatus used in the collection of butchers' refuse and bones shall be so constructed as to prevent the escape of offensive odors therefrom.

REG. 11. *Containers to be water-tight.*—Butchers' refuse and bones shall be transported in barrels, boxes, or other containers, which are water-tight strongly constructed of metal or some hardwood, and each fitted with a cover sufficiently tight to prevent the escape of offensive odors.

REG. 12. *Filling of receptacles regulated.*—When the amount of butchers' refuse and bones collected at any one point is within three-quarters of the capacity of the barrels or boxes then this material shall be removed from premises in the receptacle in which it is collected.

REG. 13. *Sorting of material in public places forbidden.*—The sorting of butchers' refuse and bones upon the sidewalk, in any public street, or in vehicles while on the public street, is strictly prohibited.

REG. 14. *Vehicles to be kept closed.*—Vehicles transporting butchers' refuse and bones shall be kept closed while on the public streets, except while such material is actually being loaded into the receptacles thereon.

REG. 15. *Final disposal.*—Butchers' refuse and bones transported under this permit may be delivered only to the following points:

- (a) To a dock or boat set aside for the receipt of offal or garbage.
- (b) To a contractor employed by the city of New York for the disposal of offal or garbage.
- (c) To plants within the city of New York holding permits from the department of health to treat and dispose of material of this character.

REG. 16. *Exception to separate containers.*—Vehicles used in transporting the flesh, fat, bones, heads, or feet of animals from slaughterhouses within 12 hours of the time after the animals have been killed need not have separate containers, provided the vehicles are used in transporting this material from the point of production to the

point of destruction; and, provided further, that the vehicles are loaded and unloaded within the plants, except that when the material of this character is to be removed from the city in boats it may be dumped into boats at some dock set aside for that purpose.

ADDITIONAL REGULATIONS GOVERNING THE TRANSPORTATION OF MANURE.

REG. 17. *Final disposal*.—Manure may be transported to a dump operated under a permit issued by the department of health, or to firms in the unimproved sections of the city, or to points outside of the city of New York.

REG. 18. *Vehicles to be tight*.—Every vehicle used in transporting manure shall be tight and provided with a suitable cover so as to prevent the dropping of manure upon the street; if the cover be of canvas or of other similar material, it shall be of sufficient size to completely cover the manure within the vehicle and shall be securely fastened on all sides to the vehicle.

REG. 19. *Vehicles to be loaded within premises*.—No vehicles engaged in the transportation of manure shall be permitted to load upon the sidewalk, in an alleyway, in a yard, or any place except within the stable.

ADDITIONAL REGULATIONS GOVERNING THE TRANSPORTATION OF ASHES AND STREET SWEEPINGS.

REG. 20. *Vehicle uncovered*.—Ashes and street sweepings shall be transported in a tight vehicle provided with a tight-fitting cover permanently secured to the body of the vehicle, and so arranged that two-thirds of the vehicle is covered when ashes or sweepings are being loaded therein.

REG. 21. *Final disposal of ashes and street sweepings*:

(a) Such materials may be delivered to any private dumping board along the waterfront of the city.

(b) They may be deposited upon vacant lots provided a permit therefor has been issued.

(c) They may be delivered to any dump maintained by the street-cleaning department provided the said department issued a permit therefor.

ADDITIONAL REGULATIONS GOVERNING THE TRANSPORTATION OF GARBAGE AND SWILL.

REG. 22. *Transporting garbage and swill into city forbidden*.—A permit to transport garbage and swill does not allow the collection of garbage and swill at points beyond the limits of the city of New York, nor does it permit or allow any such materials to be brought into the city.

REG. 23. *Escape of odors forbidden*.—The vehicles and other apparatus used in the collection of garbage and swill shall be so constructed as to prevent the escape of offensive odors therefrom.

REG. 24. *Sorting the garbage and swill in public places forbidden*.—The sorting or mixing of garbage or swill in or upon any public place, or the transfer thereof from one container to another, or from one vehicle to another while in or on a public place, is strictly prohibited.

REG. 25. *Vehicles to be kept closed*.—Vehicles transporting garbage and swill shall be kept closed while on the public street, except while such materials, or the receptacles containing the same, are actually being loaded thereon.

REG. 26. *Containers to be tight*.—(a) Swill shall be transported in barrels, boxes, or other receptacles which are water-tight and which are strongly constructed of metal or of some hardwood and fitted with covers sufficiently tight to prevent the escape of offensive odors.

(b) Garbage shall be transported in tight vehicles so constructed that liquids will not leak therefrom; said vehicles to be covered with adequate metallic or other

approved covers to prevent the escape of offensive odors, or it may be transported in tight barrels or boxes constructed of metal or hardwood and fitted with tight fitting covers. Vehicles used in this manner shall also be covered.

REG. 27. *Filling of receptacles regulated.*—When the amount of garbage or swill collected at any one point is within three-quarters of the capacity of the barrels or boxes, then such materials shall be removed from the premises in the receptacles in which collected.

REG. 28. *Final disposal.*—Garbage transported under the permit may be delivered only to the following points:

- (a) To a dock or boat set aside by the city of New York for the receipt of such materials.
- (b) To plants holding a permit from this department to dispose of such materials.
- (c) To a dump maintained by the department of street cleaning, provided said department issues a permit for the receipt thereof.
- (d) To any place within the city.

ADDITIONAL REGULATIONS GOVERNING THE TRANSPORTATION OF GREASE.

REG. 29. *Not to be brought into the city.*—A permit to transport grease does not include or allow the collection of grease at points beyond the limits of the city of New York, nor does it permit or allow any grease to be brought into the city.

REG. 30. *Escape of odors forbidden.*—The vehicles and other apparatus used in the collection of grease must be so constructed as to prevent the escape of offensive odors therefrom.

REG. 31. *Containers to be tight.*—The grease must be transported in barrels, boxes, or other receptacles which are water-tight, strongly constructed of metal or some hardwood, and fitted with covers sufficiently tight to prevent the escape of offensive odors.

REG. 32. *Filling of receptacles regulated.*—When the amount of grease collected at any one point is within three-quarters of the capacity of the boxes or barrels, then this material must be removed from the premises in the receptacles in which it was collected.

REG. 33. *Sorting in public streets forbidden.*—The sorting of grease upon the sidewalk, in any public street, or in vehicles while on a public street is strictly prohibited.

REG. 34. *Vehicles to be kept closed.*—Vehicles must be kept closed while on the public street, except while grease is actually being loaded thereon.

REG. 35. *Final disposal.*—Grease collected under the permit may be disposed of by any of the following methods:

- (a) It may be delivered to any dock or boat set aside by the authorities of the city for the reception of garbage, swill, offal, or other similar material.
- (b) It may be delivered to any plant holding a permit from the board of health to render fat, manufacture lubricants, soap, or any similar product.

ADDITIONAL REGULATIONS GOVERNING THE TRANSPORTATION OF ROTTEN EGGS.

REG. 36. *Rotten eggs not to be brought into the city.*—A permit to transport rotten eggs does not include or allow the collection of rotten eggs at points beyond the limits of the city of New York, nor does it permit or allow any rotten eggs to be brought into said city.

REG. 37. *Escape of odors forbidden.*—The vehicles and other apparatus used in the collection of rotten eggs must be so constructed as to prevent the escape of offensive odors therefrom.

REG. 39. *Containers to be tight.*—The rotten eggs must be transported in barrels, boxes, or other receptacles which are water-tight, and are strongly constructed of metal or some hard wood, and each fitted with a cover sufficiently tight to prevent the escape of offensive odors.

REG. 40. *Rotten eggs to be denatured.*—No rotten eggs shall be transported under this permit unless they have been denatured in a manner satisfactory to the department of health.

REG. 41. *Final disposal.*—Eggs transported under the permit may be delivered only to the following points:

(a) To a dock or boat set aside for the receipt of offal or garbage.

(b) To a contractor employed by the city of New York for the disposal of offal or garbage.

Offensive Matter—Opening of Ground Containing—During Warm Months. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 232 of the Sanitary Code, which provides as follows:

SEC. 232. *Offensive matter or substances; accumulations thereof not to be disturbed in certain periods of year; permit required.*—No ground or material filled with or containing offensive matter or substance, or that will emit or allow to arise through or from the same any offensive smell or deleterious exhalation, shall (adjacent to or within the built-up portion of the city of New York) be opened or turned up, nor shall the surface thereof be removed, between the first day of May and the first day of October of any year, without a permit therefor issued by the board of health, or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Prevention of dust and offensive odors.*—While ground containing offensive matter or substance is being opened, no dust or offensive odors shall be allowed to escape to the detriment or annoyance of any person or persons not being therein or thereupon engaged.

REG. 2. *Sprinkling ordered.*—When deemed necessary, the department of health may require the ground while being opened to be sprinkled with water to prevent the rising of dust therefrom, and may require the use of an adequate disinfecting solution to prevent the escape therefrom of offensive odors and to prevent the breeding of flies.

REG. 3. *Removal of material.*—All offensive material uncovered in opening such ground shall be immediately removed in proper tight-covered vehicles or containers so as not to cause a nuisance.

REG. 4. *Fence to be provided.*—If in opening such ground the excavated portion extend to the building line and be dangerous to pedestrians, said excavated portion shall be properly protected by a suitable fence.

REG. 5. *Accumulations of water prevented.*—In the opening of such ground and in the excavation, if such excavation remain in the opening of the ground, no accumulations of water shall be allowed to collect.

Domestic Animals—Keeping, in City. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 11 of the Sanitary Code, which provides as follows:

SEC. 11. *Horses, cattle, swine, sheep, geese, and goats; not to be kept or yarded without a permit.*—No horses shall be yarded and no cattle, swine, sheep, geese, or goats shall be kept or yarded within or adjacent to the built-up portions of the city of New York without a permit issued therefor by the board of health.

REGULATION 1. *Where yarded.*—No horses, cattle, swine, sheep, geese, or goats shall be yarded within or adjacent to the built-up portions of the city of New York, except when kept upon premises immediately abutting a slaughterhouse.

REG. 2. *Yards to be fenced in.*—Yards shall be inclosed by a suitable and properly constructed fence, so as to prevent animals from roaming at large.

REG. 3. *Yards to be kept clean.*—Yards shall be properly graded and drained and shall be kept clean and sanitary at all times.

Cows—Keeping of—Stables. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 12 of the Sanitary Code, which provides as follows:

SEC. 12. *Keeping of cows regulated.*—No cows shall be kept in the city of New York without a permit issued therefor by the board of health or otherwise than in accordance with the terms of the said permit and with the regulations of said board.

REGULATIONS GOVERNING THE KEEPING OF COWS AND COW STABLES WITHIN THE CITY OF NEW YORK WHERE MILK IS PRODUCED AND PREPARED FOR SALE WITHIN THE CITY OF NEW YORK.

REGULATION 1. *Construction of floors.*—Floors of all cow stables must be constructed throughout of cement and must be so graded as to discharge all drainage into properly trapped sewer-connected drains. Where no sewer is provided the drains must discharge into properly constructed cesspools. The floor opening of each drain shall be covered by a suitable metal strainer.

REG. 2. *Construction of gutters.*—All manure gutters shall have a depth of at least 6 inches at all points, and shall be constructed of cement and properly graded and drained.

REG. 3. *Floors and spaces behind cows.*—In all stables which are so constructed that the cows stand tail to tail, there shall be a space of at least 6 feet between the nearest edges of the opposite manure gutters. The floors and all of the spaces behind the cows shall be at least as high as the floors of the cow beds.

REG. 4. *Cow beds.*—The cow beds shall be constructed of such a length that all excreta will naturally fall into the gutters.

REG. 5. *Flushing of floors and cow beds.*—All floors and cow beds must be flushed with water at least once each day, and must at all times be kept in a cleanly condition.

REG. 6. *Construction of walls and ceilings.*—The walls and ceilings must be smoothly finished to prevent the collection of dust and dirt.

REG. 7. *Whitewashing or painting of walls, ceilings, and ledges.*—The walls, ceilings, and ledges must be properly whitewashed, or painted with some light-colored water-proof paint, or else constructed of smooth cement or other similar material. They shall at all times be kept clean and free from dust, dirt, and cobwebs. In all stables hereafter constructed the ceiling, sidewalls, and other woodwork shall be built of dressed material.

REG. 8. *Size of stable.*—The stable shall be of sufficient size to provide 600 cubic feet of air space for each cow. There shall be at least 4 square feet of window light for each 600 cubic feet of air space, and the windows shall be so situated as to afford an equal distribution of light throughout the entire stable.

REG. 9. *Window panes to be kept clean.*—The window panes must be kept clean.

REG. 10. *Adequate means of ventilation to be provided.*—The stable shall be provided with adequate means of ventilation of an approved automatic or gravity system, allowing 30 square inches of intake flues per 600 cubic feet of air space, and at least 40 square inches of outlet flues per 600 cubic feet of air space.

REG. 11. *Ventilation.*—The ventilation of the stable must be such that the air will be kept fresh and sweet.

REG. 12. *Interior constructions of wood prohibited.*—In all stables hereafter constructed, or buildings altered to be used as stables, there shall be no interior construc-

tion of wood other than the walls and ceilings. All stanchions, racks, and supports must be of smooth round metal.

REG. 13. *Water supply.*—All stables shall be provided with a suitable water supply, conveniently located and sufficient for all purposes.

REG. 14. *Rubbish, refuse not to accumulate.*—No rubbish, refuse, or material foreign to its proper maintenance shall be kept or allowed to remain in a cow stable.

REG. 15. *Disposal of liquid excreta.*—All liquid excreta shall be discharged through a proper connection into a sewer or properly constructed cesspool, or must be absorbed by some suitable material.

REG. 16. *Removal of manure.*—Manure must be removed from the stable as often as may be necessary, to prevent the creation of a nuisance or the discharge of offensive odors. Upon its removal from the stable, manure must be immediately taken from the premises or else stored in boxes provided for that purpose and must be removed from such boxes daily.

REG. 17. *Construction of manure boxes.*—Manure boxes constructed of cement and furnished with closely fitting metal-lined covers shall be provided of sufficient capacity for the needs of the stable.

REG. 18. *Storing of brewers' grains.*—Whenever wet brewers' grains are used for feeding cattle, such grains must be kept in cement boxes or pits. The floors of such grain pits must be so graded as to discharge drainage into properly trapped drains that are connected with a sewer or cesspool. The doors of all grain pits must be tight fitting, and lined with sheet metal on the inside. There shall be no direct opening from a grain pit to the stable.

REG. 19. *Surface of ground in front of grain pits to be covered.*—The surface of the ground in front of all grain pits and manure boxes must be covered with cement over a stone foundation for a space of at least 15 feet wide and 20 feet long. This surface must be so graded as to discharge all drainage into a centrally located, properly trapped sewer, or cesspool connected drain.

REG. 20. *Stable barnyards to be provided.*—Connected with all stables in which milk is produced for sale in New York City there shall be suitable barnyards or exercise paddocks, and except during extremely inclement weather the cows shall be turned out of the stable for exercise at least three hours each day.

REG. 21. *Premises surrounding stable.*—The premises surrounding the stable and milk house shall be so graded as to prevent the accumulation of surface water and shall be maintained in a clean and dry condition, and free from rubbish, garbage, or other objectionable matter.

REG. 22. *Saturated ground, cesspool, manure pit, and hogpen.*—No stagnant water, soggy or water or sewer saturated ground, uncovered cesspool, or uncovered manure pit shall be maintained on the premises, or adjacent thereto, nor shall any hogpen be maintained within 50 feet of any cow stable or milk house.

REG. 23. *Location of privy.*—No privy shall be maintained within 50 feet of a cow stable or milk house. All privies on premises shall be constructed with water-tight vaults. All seats of privies shall be provided with automatically closing tight covers. All privies must be maintained in a clean and sanitary condition at all times.

REG. 24. *Wagons used for transportation of manure.*—All wagons used for the transportation of manure and brewers' grain shall, if kept on the dairy premises, be maintained in a cleanly condition, and shall be kept covered with clean and suitable canvas or tarpaulin.

REG. 25. *Animals other than cows to be excluded from stable.*—All animals other than cows shall be excluded from the stable and no part of the stable shall be used for living or domestic purposes or human habitation.

REGULATIONS GOVERNING THE KEEPING OF COWS WITHIN THE CITY OF NEW YORK
FOR DOMESTIC PURPOSES ONLY.

REGULATION 1. *Construction of floors of cow stables.*—Floors of all cow stables must be constructed of some nonabsorbent material, and shall be so graded as to discharge all drainage into properly trapped sewer-connected drains. Where no sewer is provided, the drains must discharge into properly connected cesspools. The floor opening of each drain shall be covered by a suitable metal strainer.

REG. 2. *Floors and cow beds.*—All floors and cow beds must be kept clean and sanitary at all times.

REG. 3. *Adequate light to be provided.*—Every stable shall be adequately lighted by natural or artificial means.

REG. 4. *Adequate ventilation to be provided.*—Every stable shall be adequately ventilated to the external air by means of windows or other openings.

REG. 5. *Walls and ceilings.*—Walls and ceilings must be smooth and kept clean and sanitary.

REG. 6. *Size of stable.*—Stable shall be of sufficient size to provide 600 cubic feet of air space for each cow.

REG. 7. *Disposal of liquid excreta.*—All liquid excreta must be discharged through a proper connection into a sewer or properly constructed cesspool, or must be absorbed by some suitable material.

REG. 8. *Removal of manure.*—Manure must be removed from the stable as often as may be necessary to prevent the creation of a nuisance or the discharge of offensive odors.

REG. 9. *Disposal of manure.*—Upon its removal from the stable, manure must be immediately taken from the premises or stored in boxes provided for that purpose, and removed from such boxes daily.

REG. 10. *Construction of manure boxes.*—Manure boxes constructed of cement and furnished with closely fitting metal lined covers shall be provided of sufficient capacity for the needs of the stable.

REG. 11. *Stable not to cause a nuisance.*—Every stable shall be maintained so as not to cause a nuisance or permit of the breeding of flies.

Birds and Small Animals—Keeping, for Sale. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 18 of the Sanitary Code, which provides as follows:

SEC. 18. *Sale of small animals regulated.*—No person shall sell or keep for sale at any place in the city of New York any dogs, cats, birds, or other small animals, without a permit therefor issued by the board of health, or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Application to specify kinds of birds or small animals.*—The application shall specify the kind or kinds of small animals for the sale of which a permit is desired.

REG. 2. *Light and ventilation.*—The premises where the small animals are to be kept shall be properly and adequately ventilated to the external air and provided with sufficient natural light.

REG. 3. *Sink and drainage.*—An adequately flushed, properly trapped, sewer or cesspool connected sink, readily accessible to the portion or portions of premises in which the small animals are kept, shall be provided.

REG. 4. *Cages.*—Cages in which birds or other small animals are kept shall be constructed of wire with metal floor, provided, however, cages in which dogs are kept the floors thereof may be of tight wood construction, covered with an adequate amount

of sawdust or other absorbent material. Such cages shall be so constructed and arranged that all their parts can be readily cleaned.

REG. 5. Maintenance.—The premises, implements, cages and appurtenances shall be kept clean and sanitary.

Pigeons, Live—Keeping of. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 20 of the Sanitary Code, which provides as follows:

SEC. 20. Keeping of live pigeons regulated.—No live pigeons shall be kept within the built-up portion of the city of New York without a permit therefor, issued by the board of health, or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. Permit not necessary on unimproved sections.—No permit from the department of health is necessary for the keeping of live pigeons in unimproved sections of the city used for farming purposes.

REG. 2. Restrictions as to location.

(a) No live pigeons shall be kept on the same lot with a tenement house.

(b) No such permit for the keeping of live pigeons shall be granted when the said pigeons, or the coops in which they are kept, measured in the most direct line, are within 25 feet of any inhabited building other than the dwelling of the applicant, if said live pigeons are to be maintained on the same lot with the dwelling of said applicant or on an adjoining lot.

(c) If live pigeons are to be kept on a vacant lot, the written consent of the owner of said lot, or evidence of ownership thereof by the applicant, shall be produced at the time of the presentation of the application.

(d) No application to keep live pigeons on the same lot with a building other than a tenement shall be accepted unless the applicant file with his application the written consent of the other tenant or tenants of said building.

REG. 3. Not allowed at large.—All live pigeons shall be confined to proper coops and not allowed at large.

REG. 4. Maintenance of coops, etc.—All coops shall be whitewashed or otherwise treated as approved by the department of health, at least once a year and at such other times as may be directed by the department of health, and all coops and surroundings shall be kept in a clean condition.

REG. 5. Nuisance forbidden.—Live pigeons shall be kept so as not to cause a nuisance.

REG. 6. Slaughtering forbidden.—A permit to keep live pigeons for domestic use shall not include the right to slaughter.

Poultry, Live—Keeping and Sale of. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 19 of the Sanitary Code, which provides as follows:

SEC. 19. Live chickens, geese, ducks, and other fowls; the keeping, killing, and sale regulated.—No live chickens, geese, ducks, or other fowls, shall be brought into, or kept, held, offered for sale, sold, or killed in, any yard, area, cellar, coop, building, premises, public market, or other public place, except premises used for farming in unimproved sections of the city, without a permit therefor issued by the board of health, or otherwise than in accordance with the term of said permit and with the regulations of said board.

REGULATION 1. Permit not necessary in unimproved sections.—No permit from the department of health for the keeping of live chickens, geese, ducks, or other fowls is necessary in unimproved sections of the city used for farming purposes.

REG. 2. *Restrictions as to location.*—(a) No fowls shall be kept on the same lot with a tenement house.

(b) No permit for the keeping of live chickens or other fowls shall be granted when the said chickens or other fowls, or the coops or runways in which they are kept, measured in the most direct line are within 25 feet of any inhabited building other than the dwelling of the applicant; if said chickens or other fowls are to be kept maintained [sic] on the same lot with the dwelling of said applicant or on an adjoining lot.

(c) If live chickens or other fowls are to be kept on a vacant lot, the written consent of the owner of said lot, or evidence of ownership thereof by the applicant, shall be produced at the time of the presentation of the application.

(d) No permit to keep fowls on the same lot with a building occupied by two or more families shall be granted unless the applicant file with his application the written consent of the other tenant or tenants of said building.

REG. 3. *Coops and runways.*—All live chickens or other fowls shall be confined to proper coops and runways and shall not be allowed at large.

REG. 4. *Roosters not allowed.*—No roosters shall be kept.

REG. 5. *Maintenance of coops, etc.*—All coops shall be whitewashed or otherwise treated, as approved by the department of health, at least once a year and at such other times as may be directed by the department of health; all coops, runways, and surroundings shall be kept in a clean condition.

REG. 6. *Nuisance forbidden.*—Live chickens or other fowls shall be kept so as not to cause a nuisance.

REG. 7. *Slaughtering forbidden.*—A permit to keep live chickens, geese, ducks, or other fowls for domestic use shall not include the right to slaughter.

REGULATIONS GOVERNING THE SALE OF LIVE POULTRY.

REGULATION 1. *Sale regulated.*—No live poultry shall be sold in the city of New York except in crate lots only.

REG. 2. *Sale regulated in the Borough of Manhattan.*—No live poultry shall be sold in the Borough of Manhattan, except in (1) the location bounded by the north side of West Fourteenth Street between Thirteenth Avenue and Hudson Street, the east side of Hudson Street between West Fourteenth Street and Gansevoort Street, and the north side of Gansevoort Street between Hudson Street and Thirteenth Avenue, and the east side of Thirteenth Avenue between West Fourteenth Street and Gansevoort Street; (2) the location bounded by the south side of Beach Street between West Street and Hudson Street, and the west side of Hudson Street between Beach Street and West Broadway, and the west side of West Broadway between Hudson Street and College Place, and the west side of College Place between West Broadway and Fulton Street, and the north side of Fulton Street between College Place and West Street, and the east side of West Street between Beach Street and Fulton Street.

REG. 3. *Sale regulated in the Borough of Brooklyn.*—No live poultry shall be sold in the borough of Brooklyn, except in the locality bounded by the south side of Flushing Avenue between Clinton Avenue and East Avenue, the east side of Clinton Avenue between Flushing Avenue and Wallabout Bay, the west side of East Avenue between Flushing Avenue and Wallabout Canal.

REG. 4. *Sale regulated in the Borough of The Bronx.*—No live poultry shall be sold in the Borough of The Bronx, except in the locality bounded by the north side of East One hundred and fifty-sixth Street between Brook Avenue and Westchester Avenue, the east side of Westchester Avenue between East One hundred and fifty-sixth Street and German Avenue; the east side of German Avenue between One hundred and fifty-sixth Street and Westchester Avenue.

REG. 5. *Insanitary conditions and ventilation.*—Live poultry shall not be handled, stored, or offered for sale or sold in any room which is dark, damp, poorly ventilated, dirty, or insanitary.

REG. 6. *Lighting*.—All rooms in which live poultry is handled, stored, or sold shall be properly and adequately lighted so that all parts thereof may be readily inspected.

REG. 7. *Construction of floors*.—Floors shall be constructed of cement and shall be properly trapped and sewer connected. Floors shall be kept clean and sanitary at all times and shall be scrubbed and flushed at the close of business each day.

REG. 8. *Walls and ceilings*.—Walls and ceilings shall be of smooth, hard material, and must be kept clean and sanitary and in good repair, and shall be painted as frequently as may be required by the department of health.

REG. 9. *Water supply*.—An adequate supply of running water shall be provided.

REG. 10. *Returned crates not to be stored on premises*.—Returned crates shall not be stored on premises so as to cause a nuisance.

REG. 11. *Poultry at large prohibited*.—Poultry shall not be allowed at large on the premises.

REG. 12. *Adequate toilet facilities to be provided*.—Adequate and properly located toilet facilities shall be provided. Water closets shall be kept clean and sanitary and in good repair.

Animals—Shelters for Homeless—Location and Regulation. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 16 of the Sanitary Code, which provides as follows:

SEC. 16. *Shelter for homeless animals; site to be approved; conduct thereof regulated*.—No shelter for homeless animals shall hereafter be opened or established in the city of New York unless the site therefor be first approved by the board of health; and no such shelter shall be conducted in said city without a permit therefor issued by the said board or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Location*.—No site for a shelter for homeless animals shall, on or after April 1, 1915, be approved in any borough of the city of New York when said proposed site is in the built-up portions of the city or within 200 feet of any inhabited dwelling, tenement house, manufactory, office building, church, hospital, public or private school, or other institution of learning.

REG. 2. *Floors*.—The floors of every shelter for homeless animals shall be smooth, water-tight, and preferably of nonabsorbent material and shall be kept clean, sanitary, and in good repair. The floors, when required, shall be graded and drained into properly trapped, sewer-connected drains, or, if there be no sewer to which said premises can be connected, a properly constructed water-tight cesspool, or a leaching cesspool constructed under and by virtue of the terms of a permit issued by the department of health shall be provided.

REG. 3. *Walls*.—Walls of every such establishment shall be of smooth, hard material and shall be kept in good repair and painted when so ordered by the department.

REG. 4. *Light*.—All rooms or places used as such shelter shall be properly and adequately lighted.

REG. 5. *Ventilation*.—Suitable and adequate means of ventilation to the external air shall be provided.

REG. 6. *Sinks and running water*.—Suitable sinks with running water shall be provided, and if required by the department of health running hot water and hose connections shall also be provided.

REG. 7. *Cages*.—When animals are kept in cages, such cages shall be of metal construction with floors of metal, cement, or of some other smooth, water-tight construction; such floors shall be covered with sawdust or other material approved by the department of health for absorbing all liquid discharges of such animals; such cages shall be cleaned daily and the sawdust or other material used on floor of such

cages removed therefrom, kept in covered metal receptacles, removed from the premises daily, and so disposed of as not to cause or create a nuisance; all cages shall be movable and so arranged as to be readily accessible for the cleaning thereof and for the cleaning of the surrounding spaces.

REG. 8. *Maintenance*.—Every such establishment shall be kept clean and wholesome and be so conducted as not to be offensive or prejudicial to life or health.

REG. 9. *Nuisance of noise or odors forbidden*.—Every such establishment shall be so conducted as not to become a nuisance by reason of the noise of the animals kept therein or by escape of offensive odors therefrom.

Offensive Trades—Regulation of. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to sections 322, 324, 329, and 332 of the Sanitary Code, which provides as follows:

SEC. 322. *Offensive or noisome trades and businesses regulated*.—No establishment or place for carrying on any offensive or noisome trade or business shall be opened, started, established, or maintained in the city of New York, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

SEC. 324. *Certain offensive or noisome businesses in the Boroughs of Brooklyn, The Bronx, Queens, and Richmond regulated*.—The business of bone crushing, bone boiling, bone grinding, bone or shell burning, lime making, horse skinning, cow skinning, glue making from any part of dead animals, gut cleaning, hide curing, fat rendering, boiling of fish, swill, or offal, heating, drying, or storing of blood, scrap, fat, grease, or other offensive animal matter or of offensive vegetable matter, or manufacturing materials for manure or fertilizer, shall not be carried on in the Boroughs of Brooklyn, The Bronx, Queens, or Richmond without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

SEC. 329. *Business of rendering and melting fat regulated*.—The business of rendering or melting fat shall not be carried on in the City of New York without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

SEC. 332. *Boiling varnish or oil; distilling alcoholic spirits; making lampblack, turpentine, or tar; treating and refining ores, metals, or alloys of metals; regulated*.—No person shall hereafter erect or establish in the City of New York any manufactory or place of business, for boiling any varnish or oil, for the distilling of any ardent or alcoholic spirits, for making any lampblack, turpentine, or tar, for the treating and refining of ores, metals, or alloys of metals, with acids or heat, or for conducting any other business that will or does generate any offensive or deleterious gas, vapor, deposit, or exhalation, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Maintenance*.—Every such establishment shall be kept clean and wholesome and be so conducted in every particular as not to be offensive or prejudicial to life or health.

REG. 2. *Scrap to be treated*.—All scrap or residuum after use in such trade or business shall be dried or otherwise treated so as to effectually and permanently deprive such material of offensive odors.

REG. 3. *Escape of odors, etc., forbidden*.—All dust, gases, fumes, vapors, or offensive odors must be cared for by destruction, condensation, or other effective means and not allowed to escape into the outside air.

REG. 4. *Floors*.—In every such establishment the floors shall be smooth and watertight and must be kept clean and sanitary and in good repair. Where required, the floors shall be properly graded and drained into properly trapped sewer-connected

drains. (Where no sewer is available, a properly constructed, water-tight cesspool, or a leaching cesspool, under permit from the department of health, must be provided.)

REG. 5. *Walls*.—The walls of every such establishment shall be of smooth, hard material and shall be kept in good repair and painted when so ordered by the department of health.

REG. 6. *Containers*.—All containers for holding the material in use in the premises shall be of metal or metal lined, except where the material so handled precludes the use of metal in any form.

REG. 7. *Light*.—All rooms or places in which the business is conducted shall be properly and adequately lighted.

REG. 8. *Sinks*.—Suitable sinks with running water shall be provided in such establishments. In addition, running hot water and hose connections shall be provided therein whenever the department of health shall so order.

REG. 9. *Water-closet accommodations*.—In every such establishment suitable and sufficient water-closets shall be provided for the use of the persons therein engaged, said water-closets to be in compartments ventilated to the external air.

REG. 10. *Ventilation*.—All parts of such establishments shall be properly ventilated.

Hides—Tanning and Dressing—Regulation of. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the Department of Health of the City of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 328 of the Sanitary Code, which provides as follows:

SEC. 328. *Tanning, skinning, and scouring or dressing hides and leather regulated*.—No establishment or place of business for tanning, skinning, or scouring, or for dressing hides or leather shall be opened, started, established, or maintained in the City of New York, without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Floors*.—The floors of scouring, steaming, flushing, tanning, and dehairing rooms shall be water-tight and graded to properly trapped sewer-connected drains.

REG. 2. *Walls*.—The walls of scouring, steaming, flushing, tanning, and dehairing rooms shall be painted and made impervious to dampness.

REG. 3. *Ventilation*.—The premises shall be properly and adequately ventilated by natural or mechanical means or both.

REG. 4. *Disposal of odors*.—Suitable and adequate means shall be provided for the disposal of all odors, and no offensive odors shall be caused, suffered, or allowed to escape into the outside air.

REG. 5. *Care of refuse*.—All refuse shall be kept in tightly-covered metal receptacles and removed from the premises daily.

REG. 6. *Maintenance*.—The premises shall be kept in a clean and sanitary condition at all times.

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